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Original Communications.

ART. I.—*The Actual Condition of the Medical Profession in this country; with a brief account of some of the Causes which tend to impede its Progress, and interfere with its honors and interests; being an Anniversary Address delivered before the New York Medical and Surgical Society, on the 3d of January*, 1846. By F. CAMPBELL STEWART, M.D.

Gentlemen of the Medical and Surgical Society:—At a period when the attention of the profession has been called to the subject, by a recommendation from our State Medical Society, that a convention of representatives from all the medical corporations throughout the country, should assemble in this city in the month of May, for the purpose of considering its wants and endeavoring to remedy the evils by which our profession is surrounded, I conceive that I cannot better fulfil the duty with which you have honored me than by asking your attention to this matter, and endeavoring to lay before you an exposition of what I believe to be the actual condition of the medical profession in this country, and the causes which tend to impede its progress, or interfere with its honors and interests.

But before proceeding to discuss this subject, I wish distinctly to state, lest some of the remarks that I may have occasion to make may be misinterpreted, that it is not my aim nor my desire to attack individual associations. Occupying a strictly neutral position; bound by no alliance with cliques or parties; and feeling that I am influenced by none other than the purest motives, I shall, whilst disclaiming all feelings of prejudice or partiality, consider myself at liberty to discuss the question that I have raised in all its bearings—in a frank and free spirit, and without fear or hindrance.

First then, what is the actual condition of the profession in this country? and what is its relative position here as compared with that which it occupies in other countries?

In considering this subject we must draw a distinction between the

social standing of the profession—the position which its members are allowed to occupy in society—and that which is accorded to it as a profession, and in consideration of its claims and intrinsic merits.

In its social relations to the community, I am proud to declare that the medical profession of the United States occupies a more elevated and lofty station than that enjoyed in any other country of the world. Here, owing to the nature and tenor of our institutions, members of the learned professions occupy the first rank in general society; and in the absence of all hereditary distinctions, physicians, with lawyers, hold an enviable position, and are regarded by the community in so favorable a light as to be second only in its estimation to the pious and educated divine. The road to honors and distinction in every department of the public service, and in every station in life, is open to us as well as to others; and we often see members of our profession occupying distinguished political situations of emolument and trust, from which, in the older countries of Europe, they are, for the most part, from the simple fact of their being medical men, almost wholly excluded.

Here, in all parts of the country, we are individually honored and esteemed; in the smaller towns and settlements, we are looked up to on important occasions for assistance and counsel, and our opinions and advice ever command the most respectful attention and consideration. Our society is everywhere courted by the intelligent and honest citizen; and we are always regarded in the light of honored family friends by those who employ us, and place a degree of confidence and reliance in our honor and integrity, which, whilst most flattering and grateful, should lead us to contemplate seriously the nature and extent of the obligations which it forces us to incur, and which it should be our duty and pleasure to render ourselves capable of discharging in a becoming and proper manner.

In some parts of the old world, so low is the condition of our profession in its relation to the general community, that physicians are considered rather in the light of hired menials, than as gentlemen and scholars, entitled by education to be regarded as on a footing of perfect equality with the most accomplished members of every civilized and refined society. Abroad, the medical man belongs to a caste which is considered comparatively low, and, although sometimes tolerated by his supposed superiors belonging to the higher circles, he is but rarely received either in England or France on a footing of acknowledged equality by the higher aristocracy, and in some parts of Italy and other portions of the Continent, he occupies a position almost degrading.

Here, on the contrary, we claim and receive from the community the high consideration to which we conceive ourselves to be entitled, and which, notwithstanding occasional attempts to injure us collectively, we always find freely accorded to us in our individual capacities.

It is this flattering and honorable social position which we occupy that contributes materially to excite the ambition of many of the thousand applicants for admission to our ranks, some of whom thus see a road opened for access to a society which it might be much more difficult for them to reach by other more laborious and circuitous routes.

Such then is the relation of medical men individually, to general society; but what is the relation that they bear to it collectively? How is the *profession* regarded by the public at large?

That there is a great want of respect and regard for what is called the

regular profession, is, I think, abundantly manifested by the unconcealed and open efforts to injure it, as evinced both by the encouragement of quackery in all its multiplied forms and varieties, and by a constant endeavor to find fault with, condemn, and ridicule the art, and those who practise it.

The action of the representatives of the people in the legislatures of some of our States, proves likewise that our profession is not held in high estimation; these gentlemen seem, by their course of action, to desire to cast down and destroy every barrier of protection which had been raised by their predecessors, and considered by them to be quite as essential to the welfare of the people generally, as to our interests. In some instances they have succeeded in throwing the practice of medicine open, and making it free to all who choose to engage in it, without requiring from them any guarantee of their capability to treat disease, or affording to the people the slightest protection from impostors, who, by arrogating the title of physician, may with impunity pursue a course of chance practice, calculated to produce the most serious consequences to their health, and endanger the lives of those who submit themselves to their care.

The evils resulting, not to us, but to the public, from the application of the principles of free-trade to the practice of medicine, are numerous and most serious, but it is not my intention to indicate them at present, and I will only reiterate the assertion, that as a *profession* we are not held in high estimation in this country. If required, other proofs in support of the declaration may be found in the instances which I shall cite, when I come to speak of the causes which tend to operate against our united interests.

Let us now examine the question, whether we are really entitled by our intrinsic merits to the same scientific consideration as our professional brethren in other parts of the world! In a word, is our standard of learning and acquirement as high as it should be, to entitle us to consider ourselves as on a footing of scientific equality with the physicians of other countries, and such as to justify us in demanding, as a matter of right, an unbounded confidence from those who employ us, and place faith in our professions of capability?

This is a most delicate question, and demands a careful and attentive examination. We are all, for the most part, unwilling to admit our inferiority in anything to which we have devoted a special attention, and in which we desire to be considered proficients; it is only natural and to be expected, that we should hold ourselves equal to others of the same calling; and it is but very rarely that we can bring ourselves to admit, particularly in the cases of professional men, that we have superiors.

At the threshold of this investigation, I am bound to acknowledge that, in science at least, the profession in this country is far behind the medical communities of other countries, and this I think is wholly owing to the wrong and faulty system of medical education established amongst us; a system so defective as not only to have attracted the attention of foreigners, but to have led to a loud call from the disinterested and well-informed portion of our own Faculty, for a thorough remodelling.

With the exception of some few attempts to support the present system, originating with parties whose position is such as to warrant the conclusion that they must be more or less influenced by personal interest in advocating it, I believe that the feeling may be considered as almost

universal in favor of the adoption of a more extensive course of general and professional instruction, and the establishment of a higher standard of medical acquirement.

To aid us in investigating this subject, I will present a statement of what is required by our Medical Colleges of their students, before they will allow them to apply for an examination, or accord them the honors of a Degree, and by comparing these with the requirements exacted by the medical boards of other countries, we shall be able to see in what the difference consists, and why it is that our physicians, at least at the period when they first become such, are not entitled to be considered on an equal scientific footing with those of other parts of the world.*

At most, if not all the chief Medical Schools of the United States, it is exacted from Students who apply for Degrees, that they shall produce evidence,

1st. Of their having studied in the office of a Practitioner.

2d. Of their having attended during two courses of lectures at a Medical College.

3d. That they shall have composed a Thesis; and

4th. That they shall have complied with some minor general regulations.

There is no preliminary examination, and no means are resorted to for ascertaining whether a young man is capable, by previous preparation, of profiting by the lessons of his instructors, or likely to make hereafter a competent and useful Physician. He may be thoroughly well grounded in the various branches of science, and his general knowledge may be most extensive; or he may be, as I have known, so ignorant and illiterate as to be unable to write his own language, or translate the Latin of the Diploma which he is striving to obtain. He is not put to the proof, and no evidence is exacted of his having complied even with these few rules, other than his simple assertion, or at most the exhibition of his tickets, which is rather required as a proof of his having paid for them, than as any evidence that he has attended the lectures to which they give him admission.

Having fulfilled these obligations, he is admitted to an examination, and receives his Degree, or is rejected.

The character of this examination is generally such, that a student who cannot undergo it must be wofully ignorant indeed. Hence, the rejection of candidates is, with us, a matter of exceedingly rare occurrence, and almost all who have complied with the most essential requisite of paying their teachers, are sure to be honored with the title to which they aspire.

At all the principal Universities and Colleges in Great Britain, Ireland, and on the Continent, where medicine is taught, the courses of instruction are much more complete and perfect than with us. At London, Edinburgh, Paris, Dublin, and other seats of Medical schools, students are afforded many more, and much greater facilities for acquiring a thorough medical education, and the period of study is not only much longer, and the subjects taught more numerous, but the preliminary and final

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* For a detailed statement of the regulations established by the principal college in this country and in Europe, in reference to the Degree of M.D., see Appendix to this address.

examinations are of a character to render it certain, that the candidate who obtains their Diploma must be a qualified and thoroughly well-educated physician.

The courses of instruction at our Colleges embrace, for the most part, six subjects, which are professed to be taught in two years, or rather in two periods of less than four months each, so that with a moderate degree of attention, and a fair share of common sense, any one, with us, may acquire the knowledge considered as necessary for a physician, and obtain a license to practise, after about *eight months'* college study! And this too under circumstances in every respect unfavorable; such as a continual and irksome attendance on lectures on different subjects, during a great part of every day, leaving neither time for study and preparation, nor for relaxation or dissection. More time is devoted in other countries to the study of the fundamental science of anatomy alone, than is allowed to our students for perfecting themselves in all the branches of a medical education.

Whilst for the most part, then, seven or eight months' attendance on lectures is required by the regulations of our Medical Colleges, in Europe four years are considered as scarcely sufficient; and that too after a preparatory course of study calculated to enlarge and strengthen the mind, and render it fit for receiving the more difficult and important professional knowledge which is to be subsequently imparted.

All the more important subjects, and especially practical anatomy, and clinical medicine and surgery, are there thoroughly taught. The student is not only required to dissect, but is examined on Dissection, whereas, here a very irregular attendance on the Dissecting-room, probably during a few evenings only in each session, is all that is expected of our pupils, and indeed, in some cases, they are notified publicly, beforehand, that though advised to do so, they will not be required to dissect at all. Whilst it is considered of paramount importance abroad, and is so in reality, little or no attention to Hospital practice is required from the student here. Some of our colleges exact from him that he shall purchase a ticket of admission to a hospital, when one is convenient, but there the matter rests. And this even is not always required; and if not obligatory on them to do so, how can it be expected that students, when they have so much else to attend to, will go to the expense of procuring a ticket, or after getting it, will take the trouble to attend the practice of these institutions? That they do not do so, is, I think, very evident, from the fact that out of upwards of six hundred in attendance at the New York Colleges during the present session, only about one in eight have applied for the privilege of visiting our City Hospital! And yet this is known to be the only one here to which they can obtain access. The all important branch of clinical instruction then is not taught to students here, at all events in a satisfactory manner; for the cliniques attached to the schools in this city, in Philadelphia, and elsewhere, though useful, can never present to them the advantages that they would derive from examining patients, and following their treatment, in a regular and well organized hospital, and under the direction of qualified teachers.

Botany, Medical Jurisprudence, Practical Chemistry and Pharmacy, Pathology, and some other subjects considered essential to a medical education abroad, are nowhere taught properly, or as separate branches, in the medical schools of our country; and the student's knowledge of them,

if obtained at all, must be gained by close study and application at home, after he has gotten his diploma, and left college.

It is the want of a thorough and efficient course of education here, that induces so many of our young graduates to go abroad for the purpose of gaining knowledge which they ought to be able to obtain at home; and I may venture to assert, that if proper use was made of the advantages possessed by our large cities for affording medical instruction in all its departments, and if our schools would at once adopt a high standard of professional acquirement, Paris and London would soon cease to present the superior attractions which they now do, and our young men would seek at home the information which it now costs them so much trouble and expense to obtain in foreign countries.

It is most humiliating to us to know that none of our colleges are recognized by European schools as on a footing of full equality, and that alumni here are not thought entitled to be held as equals with students there. And yet such is the fact, and most keenly do some of our spirited and high-minded young men feel it to be so. I have known them ashamed to acknowledge that they were graduates, and the M.D., so coveted, and so ostentatiously displayed at home, at least whilst it is new, I have seen erased from their cards when abroad.

So satisfied are some of them that they are not prepared to defend the title with which they have been inconsiderately honored, that they prefer to appear simply as students, from whom much less is to be expected than might be looked for in persons bearing the full and highest honors of the profession. It is for the want of a thorough education here, that our young physicians are compelled to enter themselves as the students of students when they go abroad, and thus to admit, that though graduates, they are wanting in the knowledge possessed by under-graduates.

It is a gross error to suppose that the high standard of medical education established in Europe is the result of wealth, and that it is impracticable to introduce it into this country, as has been asserted by a venerable author here, whose lecture on the subject, and in defence of our present system, has been so severely criticised, that I shall make no other commentary on it, than to point to the bright examples to be found amongst the most eminent and renowned physicians of Paris and London, many of whom have had to encounter a degree of abject poverty unknown in our country, and who have, nevertheless, gradually risen to fill the proud positions which they now occupy.*

Besides the estimate in which it is held abroad, in what light is this subject considered at home? The editors of many of our medical journals admit frankly that our whole plan of education is most faulty; and numerous recent writers, in advocating the call for a general convention, declare that the defects of the present system are so glaring, that a change is absolutely required. One of them makes use of the following strong language in reference to the subject:

"We have always advocated a higher standard of medical attainment for graduating in medicine, and a sufficient preparatory education to place physicians on

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* The celebrated Velpeau, one of the most distinguished men in our profession, was so poor when a student, that he was forced to live on coarse ammunition bread and water. For a long period his daily expenses were limited to *nine cents*, and he supported himself for three months, in Paris, on *twenty dollars*.

a par with the other learned professions; but we have seen so much of the levelling system; so much pandering to popularity; such audacious promises on the part of medical schools, to gull pupils; such pretensions to cheapness in board; such mock examinations for degrees; such drumming up of students; and such underbidding in the price of tickets; in short, such artifices, and tricks, and manœuvres, for the sake of putting a few dollars in the pocket, that we have almost lost our early faith in the practicability of medical reform, at least to that extent to which it ought to be carried in order to accomplish the desired end."

There is no school here, whose certificate our army and navy examiners can take as a sufficient guarantee of the qualifications of candidates for admission as medical officers into either of these branches of the public service; they are obliged to form a standard of their own, and the numerous rejections of young men, mostly graduates, whom they examine, show conclusively that it is higher than that of the colleges generally.*

The possessors of them do not always appreciate the diplomas which are so easily obtained, and which they in many instances know and feel that they do not deserve. A young man applied to me a short time since to take him as a pupil, and on my asking if he had yet undergone his examination, he answered me "yes, he was a graduate of such a college;" but with great naïveté added, "that he did not think he ought to have a diploma, or that it could be worth much."

A gentleman, likewise a graduate, in indicating to another, in my presence, some of the numerous advantages which he might derive from visiting Paris, stated that "he had, on obtaining his diploma here, considered himself to be a good anatomist, a good chemist, and a good surgeon; that he thought he was a competent physician, and quite as well informed in his profession as any one else. He had gone abroad, however, and he had been but a short time in France when he was ashamed to find how ignorant he was, even in the branches in which he had supposed himself accomplished. He soon ascertained that his whole course of stndy was to be gone over again, and that he literally knew nothing, and was far behindhand with junior colleagues with whom he was brought into contact."

A system then, which is so universally admitted to be defective, must stand in need of amendment, and it appears to me that a period has now arrived when a bold step may be advantageously taken in favor of reform, and the introduction of, if not a European, at least a higher standard of medical education amongst us; and the school or schools that shall adopt it, though they may for a time experience a loss in the diminished number of their pupils, will eventually, and certainly, find their reward in the increased value that will attach to their diplomas.

We can most of us recollect the time when the Edinburgh or London Degree was almost necessary for the physician who expected success in his profession;† it is now almost equally necessary for those who would

* "A medical board for the examination of applicants for appointment to the medical staff of the army, was convened in the city of New York, on the 1st of July last. Before this board 15 candidates were invited to present themselves, 10 of whom only appeared and were examined; and of these last but 2 were approved and recommended for appointment."—*Report of the Surgeon General U. S. Army.*

† There are, however, numerous exceptions to this general rule, for we have amongst us some fully qualified and highly accomplished physicians who are self-made men, and who never enjoyed the advantages afforded to those who study in Europe.

succeed, to have enjoyed the advantages of Paris. The public, having no other sure guide, formerly esteemed a physician in proportion as the university from which he received his degree was estimated; and now that we have so many schools, and so many incompetent physicians, and are so surrounded by quacks—renegade doctors—or those who arrogate to themselves the title, people will begin to look about them again, and make inquiries as to the relative standing of the various colleges, with the view of employing those physicians who shall bear the diploma of that institution which is known to give the most full and perfect course of instruction.

It would almost seem from the course pursued by them, that many of our colleges are disposed to offer bounties to young men, and entice them away from honest mechanic trades, to engage in the study of medicine.* So easy and cheap do they make it appear, is the effort necessary for gaining a license, that numbers are induced to study, who would never for a moment think of doing so, if moderate restrictions were imposed, and they were required to devote a reasonable proportion of time to attendance on lectures.

The result of this is, that hundreds gain entrance to the profession who are wholly unfitted for fulfilling the high duties devolving upon practitioners; and this evil must continue so long as the efforts of our medical schools are directed to the end of obtaining the largest classes, and sending forth the greatest number of graduates. So long as they trust for reputation on the number, rather than the character, of their alumni, our country will be annually flooded with imperfectly and half-educated physicians, many of whom must, from absolute necessity, be forced to resort to means for gaining a livelihood, calculated to degrade them in their own and in the public estimation, and to produce a ruinous influence on the profession.

I regret that time does not permit me to enter more fully into the examination of this important subject, which is worthy of the closest consideration, and demands the earnest attention of medical men. I have said as much, however, as the occasion warrants, and I will now proceed to indicate some of the causes, which, in my opinion, tend to interfere materially with the honor and interests of our profession.

These are of two kinds: such as are produced by the acts of the profession itself, and such as are caused by the acts of the community generally, or those not belonging to our society. Of these, the first, it appears to me, are by far the most important, and productive of incalculable injury; and I think that we might find, if we examined carefully, that many of the evils of which we have cause to complain, are the direct consequence of the suicidal course pursued by the profession itself; and that in fact most of the difficulties by which we are surrounded are occasioned by ourselves.

Can all members of our faculty conscientiously assert that they have ever acted with the view, and in a manner to promote the interests of the profession to which they belong? And are all guiltless of having at times pursued indirectly, if not directly, a course calculated both to impair the

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* At some of our country medical schools, students are allowed to pay their professors with due-bills, or notes, to be redeemed at some future period, when the young men shall have accumulated enough money to enable them to cancel the obligation.

credit of the general body, and lessen the estimation in which it should be held by the public at large? It cannot be expected of any one that he should admit the charge openly, and yet we all know that there are numbers who feel, and who are obliged to admit to themselves, that they have too often pursued a course in furtherance of their own individual interests, which was calculated to impair that of the body generally.

The professional and social intercourse of medical men, in this city especially, is on a wrong and improper footing; there is to as great, if not to a greater extent here, than elsewhere, a degree of jealousy and unkind feeling which ought nowhere to exist.

It would appear that many of our body fall into the gross error of considering that their individual success depends on decrying their professional rivals, and indirectly leading patients to conclude, that they alone, of all others, are able and capable of rendering effectual assistance. This has been everywhere noted as a common and general fault of the Faculty, and those who indulge in the practice are most wofully mistaken in the result which they hope it may produce. I have yet to learn that a single instance can be found in our annals, in which eventual or lasting success has attended the exertions of individuals who have endeavored to gain a position by so unfair and dishonorable a course. The public is generally sufficiently versed in these matters to be able to distinguish between genuine merit, and boastful pretension, and it rarely or ever accords confidence, to those whom it cannot esteem. All who are in the habit of indulging in this very censurable and disloyal course, would do well to bear in mind the established truism "That every physician who decries another, injures himself by depreciating the general estimation in which his profession should be held." Or in the words of Mr. Percival:—

"A physician should (from motives of interest) cautiously guard against whatever may injure the general respectability of his profession; and should avoid all contumelious representations of the faculty at large, or of individuals; all general charges against their selfishness or probity; and the indulgence of an affected jocularity or scepticism concerning the efficacy and utility of the healing art."

That this evil exists to a deplorable extent amongst us cannot be denied; and it is the more to be regretted, because it is so generally unjust, from the circumstance of its being almost impossible to ascertain the real qualifications of medical men (after graduation), and from depreciating language being frequently used in reference to individuals with whom the party has no personal acquaintance, and whose impressions are often formed from hearsay, or are the result of some pique, or supposed cause of complaint, for real or imaginary injuries, and rivalry.

A part of this evil results from the fact that social meetings of medical men are not of sufficiently frequent occurrence amongst us.* The advan-

* It is, I am sorry to say, a very rare circumstance for the physicians of New York to meet together sociably at each other's houses, or indulge in an interchange of friendly civilities. Here, there are no convivial assemblings of those whose tastes and occupation should draw them frequently together; and although some laudable efforts have been made to break through the icy circle that surrounds us, they have not been responded to in a proper manner, and consequently have failed to accomplish the desired end.

tages of this kind of intercourse are most manifest, and it should be heartily encouraged, as it always serves the purpose, by bringing individuals together in a friendly way, of engendering kindly sentiments, and exciting mutual regard and esteem, which will ever be accompanied by courteousness of demeanor and general respect.

The Faculty has been injured by the course pursued by some of its members, in reference to their intercourse with those, who are debarred by their own acts from being entitled to be considered on a footing of equality with honorable and respected members of our society. It is sometimes very difficult to draw the line of distinction between those members of the profession who retain a right, as honest members of it, to enjoy all its privileges and honors, and those who, by their acts, have forfeited all claim to its countenance and support. The moment, however, that it shall be proven satisfactorily, that a medical man has departed from a strict line of professional conduct, and pursued a course calculated to impose on the public, and degrade his calling, he should cease to be regarded as an equal by high-minded physicians, and it becomes their duty to expose him, and to refuse to lend him their aid and assistance in consultation.

I am happy to add, that I believe the evil resulting from this source is now at an end—at all events in our own city; for I do not know of any practitioner of respectability, who will now consent to consult with, or meet on a footing of equality, any one who is openly known to pursue a course at variance with the honor and interests of his colleagues.

Conscientious and highly honorable members of the Faculty have at times lent them the influence of their names, and given certificates to vendors of quack medicines, thereby contributing, probably, without intending it, or indeed, without considering that such must be the result, to favor imposture and weaken the bonds by which the profession should be united to the public. Such a course is sometimes pursued even now, and I believe it to be a most fertile source of mischief and injury to us. When the signature of a regularly graduated physician is appended to these notices of drugs, the valuable qualities of which are certified to by him, how can it be expected that the public shall refrain from purchasing them? We have had some striking examples of the evils ensuing from the practice, and we should unite in our efforts to put a stop to it.

By our charges we sometimes excite in the public mind a feeling of doubt and distrust; in some instances by demanding more for our services than they are really worth, and in other instances so far undervaluing them, or rather allowing them to be undervalued, as to lead people to think that, when thus tacitly acknowledged to be worth so little, they may in reality be worth nothing. This is one of the great difficulties with which we have to contend, and unfortunately it would scarcely seem capable of being remedied. No fixed and satisfactory tariff, applicable to all cases, can be established, and it is a matter which had probably better be left to the judgment and discretion of each individual. A just medium in charges, however, should always be observed, and we should never be so unreasonable as to ask $100 for a single and inactive consultation visit in the city, nor yet condescend to allow our services to be estimated at the value of ten cents a visit, or one shilling for vaccination or venesection. When persons are really able to do so, they are, for the most part, both ready and willing to grant a fair and adequate remuneration for professional services, and when too poor to pay more than the

paltry sums last indicated, we should refer them to the public charitable institutions provided for them, or, at all events, a feeling of pride should lead us to reject all compensation, and find our reward in the conscious pleasure of doing a good action.

Feuds amongst ourselves are of too frequent occurrence; they should always be condemned and avoided, as they are the means of retarding the progress of the profession, and frequently throw impediments in the way of science. These, however, when strictly confined within professional limits, cannot produce the great and serious evils which must ever result from their being made public. All of our faults and errors should be kept within our own bounds, and on no account should medical men allow their feelings to get the better of their judgments, so far as to lead them to commit a positive and irreparable injury on the profession, the evil consequences of which they are sure to experience themselves, in the depreciation of public respect and confidence in their profession. They should recollect the advice given by the venerable Hufeland, and bear in mind his declarations on this subject, to the effect that:—

"In proportion as the public is made acquainted with the faults and defects of physicians, and as they are made to appear suspected and contemptible in its eyes, so is the estimation in which medicine is held, lowered; and as this diminished confidence is extended from the science to those who practise it, the censurer soon experiences the consequences of it himself. Public malice against physicians would certainly be less indulged in, and their faults would much less frequently furnish food for general conversation, if they never themselves set the example."

Our intercourse in consultation is not regulated by any well-understood or generally approved rules, and hence there are occasionally serious difficulties occurring in instances in which they would not occur, if good and established forms were universally known and rigidly adhered to. That advantage is sometimes taken, by those called on for consultation advice, to supplant the regular or family attendant, is well known; and hence, that degree of confidence so necessary for the interests, both of the patient and the profession, cannot exist where such a result may even be apprehended. It is impossible to conceive that a more degrading and baneful influence could be brought to bear against our body, than a practice of this kind, and I cannot, for my life, see how an honorable and liberal-minded man could for a moment indulge in so disreputable a habit. With those who profess the feelings of gentlemen, the compliment conveyed in the simple fact of confidence being reposed by a brother practitioner, to the extent of leading him to seek for friendly advice and assistance, from a source from which he thinks that he may obtain both, is more than enough to outweigh any feeling of sordid interest which might arise in his breast. The simple fact of his being called to a family or patient, with the consent, and generally at the solicitation of the ordinary attendant, renders it impossible for him, at any future period, to attend such family or patient, without a full and honest understanding with the other, unless in cases of emergency, and then only as a *locum tenens*, until the regular attendant can be found.

It is much the practice with us to entrust our patients to the care of some friend during temporary absences from business, or in case of sickness, and any undue attempt to supplant those for whom we act, is as unjust as it is dishonorable, and I regret ever to have learned, what I

did with shame, that a distinguished physician of our city had urged to one in a neighboring town, as an excuse for not prolonging a visit that he had made, "that he was afraid that if he did not return home, those left in charge would steal his patients from him."

I have now alluded, but very cursorily however, to some of the faults of the faculty itself, which are, I think, positive causes operating injuriously on our general interests. The remarks that I have made, though applying in full force to the condition of things amongst us, are by no means confined exclusively to the profession in this country; the evils to which I have called attention, are most of them acknowledged to exist elsewhere; they are not for this reason, however, the less serious, or the less to be regretted; it behoves us all to unite in endeavoring to remedy them; and I feel confident that, as far as its influence and power extends, this Society will, whilst pursuing its course of general usefulness, strive to inculcate sound and wholesome doctrines in Medical Ethics.

I will now proceed to point out some of the non-professional causes which tend to produce an injurious effect on the interests of the faculty.

The influence of the Press is severely felt by our profession as being frequently exerted to its prejudice and discredit.

The most prominent and striking manner in which this injury is experienced, is through the facility afforded to Quack advertisers, for inserting in popular and extensively circulated papers, notices of their secret remedies, and astonishingly successful modes of treatment. To such an extent has this evil grown, that whole columns of our most respectable newspapers are filled with them. A recent writer declares that he had counted eleven out of twenty columns comprised in one paper, filled with these quack notices.

It is wholly impossible to calculate the amount of injury that accrues to the community, as well as to us, from this pernicious and degrading practice. For, besides lending to impostors, facilities for puffing and making themselves known, these advertisements are frequently of a character both indelicate and criminal, producing a baneful influence on public morality, and often leading to the commission of offences against the laws both of God and the State.

I am aware that the space occupied in newspapers in the manner indicated, is well paid for, and that it may appear unfair and unreasonable to expect their proprietors to deprive themselves of so fertile a source of revenue. But have these gentlemen no other object than pecuniary gain? Are they not bound, as directors of public opinion, and as guardians of the public interests, to abstain from pursuing a course calculated not only to injure us, but directly prejudicial to the public weal? Is it so clear that they would necessarily incur a loss by refusing to promulgate information such as is usually contained in these notices? If they could be induced to devote the space occupied in this disreputable manner to miscellaneous information of a general character, they would soon find their subscribers to increase in a proportion amply sufficient to compensate them. The experiment has already been tried abroad, and we hear of no complaints of loss from those interested in such journals as have refused to serve as a medium for imposition.

The opinion of the publisher of one of these papers on the evils resulting from the course generally pursued, is expressed in such strong and forcible language, that I cannot resist the temptation to quote it. He says,—

"We fell into the current and followed the bad example of pre-existing periodicals; but reflection has led us to see our mistake, and we hasten to repair it, assured that we shall give satisfaction to all our readers, who properly estimate the true character of modern quackery, which is one of the vilest and foulest of all foul and vile vocations, and is sustained to an incredible extent by fraud, forgery, and falsehood, and fraught with delusion, disease, and death. To publish their nostrums is to partake of their deeds. To receive their money is to share their spoils and aid them in making war upon mankind."

May we not hope that the example set by this Editor may be speedily and generally followed on this side of the Atlantic, and that editors here may likewise be found—

"Cheerfully to abandon the publication of all advertisements of quack medicines, which will be an act of homage to their own taste and judgment, no less than a concession to the strongly expressed opinions of some of their best friends, who, with ourselves, deeply deplore the disease and mortality occasioned by the nostrums of medical quacks, published daily in this great metropolis."

By following so independent and wise an example, this foul blot on the body of our Press will soon be entirely and permanently erased.

But this is not the only complaint that we have to make against publishers and editors in this country. We have to find fault with many of them for their editorial encouragement of new systems, and innovations on our established methods of practice, by which, if possible, more than by inserting advertisements, they injure us, and make dupes of the public. The frequent, and often well written articles which appear in the editorial columns of our newspapers, in praise of various quack systems of medical practice, and urging upon the community their value and importance, do much harm. For, besides being more generally read, they carry with them a great degree of weight, as emanating from individuals supposed to be impartial, disinterested, and capable of forming a correct judgment.

The Press is likewise guilty of injustice towards us in sometimes publishing garbled or incorrect reports of the acts of medical men, or bodies of medical men, which are calculated to cast ridicule on them and on the profession to which they belong. The professional transactions of Medical societies, and the reports of medical lectures, are not proper or fit subjects for insertion in other than medical journals. But, at all events, when they are published, it is but a matter of common justice to report them correctly and with accuracy.

The remarks sometimes made by the Press in reference to dissection, are often injudicious, and calculated to maintain feelings of prejudice against it, and against those who are obliged to resort to it. Practical anatomy is one of the branches of our profession, with which every medical man should be familiar, and as it is impossible that a proper and correct knowledge of it can be obtained otherwise than by the actual dissection of dead bodies, it appears to me that the intelligent writers for newspapers would be doing a positive good, if, in place of exciting their feelings by using harsh language in reference to this subject when it is spoken of, they would endeavor to bring people to view it as indispensable for their own interests; as, without it, it is wholly impossible for us to qualify ourselves to make good physicians or skilful surgeons, the influence

of the press should be exerted to lead the public to look upon it as a matter of course, and our authorities should be induced to make suitable legal provisions for furnishing students with the means of prosecuting their studies in this department of science.*

I think we have fair grounds for making complaint against the legal profession, for interference with our interests, in the manner in which charges are sometimes given to juries, and examinations sometimes conducted in cases of a medico-legal character.

I need not remind you that, in their endeavors to get evidence from medical witnesses, lawyers often travel out of their way, and go far beyond the record, in order to endeavor if possible—not to shake the testimony of those whom they may be examining, or cross-questioning; for this they have a perfect and undeniable right to do if they can; it is their duty to get all the facts of a case, and elicit the truth from every source—but to impair the confidence of a jury, in medical testimony, as such. They are often satisfied if they can make it appear that a physician falters, or is unable to answer at once, and without a moment's hesitation and reflection, all and every question that they may choose to put to him; forgetting that whilst theirs is an exact science, ours is as yet far from being such, and that an apparently trifling question may involve so much, and be capable of so many various interpretations, that every honest and upright man will naturally pause and hesitate, before pronouncing an opinion on which much may depend, and which it is often requisite for him to study well, before he can come to a conclusion that shall be satisfactory even to himself. Does a lawyer make up his mind, and pronounce an opinion directly, when a legal question is submitted to him? Undoubtedly not; he demands and takes time to consult his books and the various authorities on the subject, and after due reflection and study, and a repeated and calm examination of all the facts and bearings of the case, he decides, and returns an answer to his client. How then ought it to be expected of us, that we should be able to reply, without timely consideration, to the many futile and irrelevant questions that are often put to us by counsel? Have we no authorities to consult, and no examinations to make before we can come to a correct conclusion? Assuredly we have; and from their great number, and the want of established standards to go by, as a general rule, we should have much more time even allowed us, than would be accorded to the lawyer, in which to make up our minds.

Though an excuse may sometimes be found for the course pursued towards us, by examining attorneys, whose task, I am ready to admit, is occasionally a difficult one, I conceive that none whatever can be urged in favor of judges, who, in summing up evidence, and giving charges to juries, occasionally make use of language calculated to produce an unfavorable impression against medical testimony, and thus indirectly against the profession.

We have two striking examples of the existence of the evil of which I complain, recorded in the *New York Journal of Medicine;* the one

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* It is but just to state that, since this address was delivered, an editorial article has appeared in one of our most popular city journals, noticing and advocating the call for a National Medical Convention, and admitting the existence of some of the evils here complained of.

as occurring in a case of trial for malpractice, in vaccinating on the arm, but not exactly at that portion of it usually selected for this operation; and the other, very recently, in a trial for murder and arson.

In the first instance, the Judge, one of the most eminent in a neighboring State, after listening to the positive testimony of most intelligent and competent medical witnesses, which testimony tended to exonerate the operator from all blame in the case, is reported to have charged to his jury, "that in performing the operation of vaccination or inoculation, the physician is liable for all consequences if he neglects the usual precautions, or fails to insert the virus in that part of the arm usually selected for the purpose; notwithstanding many other parts of the body might be proven to be equally proper, and even more suitable localities;" and he is reported to have gone on to illustrate his position, by likening us to common carriers, who would be liable to damages, if, in the transportation of public or private property, they departed from the usual route.

As might well be supposed, the jury, under these directions, brought in their verdict against the physician, and awarded heavy damages, besides the costs. Let us hope that this very learned gentleman may never require the services of a surgeon, who, in order to save his life, might have to modify an operation, or depart from a usual course; for in such case, he might fear the consequences, and hold himself justified in refusing to interfere.

The other instance to which I have alluded, occurred in the trial of "Polly Bodine;" it is, if possible, more serious than the one which I have just briefly narrated. It may be recollected that, in this case, physicians were called upon to institute a post-mortem examination of the remains of a female and child, who were supposed to have been murdered, and afterwards burned. These physicians discharged their duties with credit to themselves, and in a manner which should have given general satisfaction, as far as they and their evidence went. But what acknowledgment did they receive for their performance of the unpleasant task imposed upon them—one for which I may venture to say they were allowed a very inadequate, if any pecuniary compensation at all?—why, the presiding Judge took occasion, in his summing up to the jury, to make these uncalled for and unjust remarks:—

"Was the death here by violence? Unfortunately very much of the difficulty which we now encounter, at this stage of the case, arises from the very inadequate manner in which the physicians discharged their duty. Had they made a judicious, active, and scientific post-mortem examination, they could have increased, in a great extent, the evidence of the guilt or of the innocence of the prisoner; and it is greatly to be regretted that this was not the case. They did not even make a memorandum of the examination, such as it was. They made no inquiry whether there had been strangulation or suffocation, whether poison, or some narcotic drug, had been administered; even their examination with respect to the marks of violence was imperfect and unsatisfactory. They have left us, therefore, in that state of uncertainty, in regard to the cause of death, which is very much to be regretted both by you and me."

When the acumen of judges and lawyers is insufficient to detect whether a prisoner is guilty or innocent, it seems rather hard to throw the blame upon the unfortunate doctors whom they may have called upon for assistance, particularly in a case where, from the testimony of the medical gentlemen alluded to, it appears that the bodies submitted to their ex-

amination were so much charred and altered, that it was impossible to derive from their inspection more satisfactory or accurate information than that which they obtained and communicated to the court. I would partake with these gentlemen of the gratification which would be afforded to us all, if the learned judge would inform us by what means we could be able to obtain the information which he charges them with carelessness in not obtaining. I fear it would puzzle that prototype of wisdom—as he is always referred to as an ultimate resource—the Philadelphia lawyer—or even their honors themselves, to do more or better, than was done by the respectable medical gentlemen implicated in the cases to which I have alluded; and I can but think that they would act more wisely, and more in conformity with the ends of justice, by augmenting, rather than depreciating the value of medical testimony.

Gentlemen, we are entitled to a little more courtesy in these matters from our brothers of the bar; and as the most important results follow from it, and the greatest stress should be laid upon the evidence of physicians, it would appear to be the soundest policy, and a public duty, so to conduct the examination of medical witnesses as to get at the positive truth, and elicit all the facts of a case, without endeavoring to make an impression against their evidence, which must affect a class, the object of all whose scientific researches is the elucidation of truth, and whose collective aim and desire is to be useful to their fellow-men.

Besides the manner in which I have indicated, it is asserted that members of the legal profession are frequently active propagators of new theories and quack notions, all of which tend more or less to the positive injury of our profession. A late writer says, in relation to this subject:

> "The lawyer himself, though he sees his own profession hemmed in by the strict limits of a prescribed education, and by a formidable array of antiquated technicalities, thus opposing to the intrusion of quackery a firm, though time-worn and moss-covered wall that it cannot scale—even he is often seen encouraging in our profession empiricism of the grossest kind, and perhaps cheers on and assists an ignorant populace in pulling down our modern wall, which has been so recently built that its uniting cement is yet hardly dry."

These remarks were appropriately introduced into the address from which they are quoted (Dr. Hooker's Dissertation), and although I do not think that lawyers are as often given to the encouragement of quackery as many other members of the community, I do consider that, being highly educated and accomplished scholars and gentlemen—fully capable of appreciating the difference between what is absurd and what is rational—between ignorance and intelligence—they should *always* discountenance the former, and on all occasions lend their influence to the furtherance of science.

We feel severely the influence of the clergy, as operating against our collective interests, and through their countenance of empiricism, to the positive detriment of the public at large.

Let me speak with reverence of the ministers of God, whom we are all taught from our earliest youth to honor and respect, and for whose holy calling I entertain feelings of the greatest veneration; and let us consider the course that is pursued towards us by many of that body, as the result of thoughtlessness and want of consideration, rather than as an evidence of ill will, or intentional desire to injure us, and deceive such as confide themselves to their spiritual charge, and place unbounded confi-

dence in assertions supported by the testimony of pastors whom they revere and esteem.

I would on no account lay myself open to the imputation of making an unjust or harsh attack on ministers of the Gospel; and yet when their influence is sought, and their credit obtained, to defraud the public by recommending persons wholly unworthy of regard, it becomes a duty to indicate in plain terms the evil consequences that ensue from such patronage being extended to such individuals, and likewise to show how detrimental is such a course to the interests of a profession with which they are so closely allied, and the object of which is, as well as that of their own, to do good, and to heal and succor such as stand in need of assistance. No class of men have a better opportunity of witnessing the untiring devotion of physicians to their sick charges than clergymen, who are so frequently brought into contact with them in the abodes of sickness and misery, and in the hour of death; none are better informed than clergymen of the innumerable sacrifices made by medical men in ministering relief to that unfortunate class of the community, whose want of means and poverty, render it impossible for them to proffer or afford any remuneration to those who have assisted them in their sufferings, and relieved their wants. Clergymen are, or ought to be, aware that the services rendered by medical men to all our public non-political charitable institutions are entirely gratuitous, and that in most instances they do not receive, directly or indirectly, any consideration whatever for their loss of time, anxiety of mind, and the numerous inconveniencies to which they are subjected. Do they not know that our hospitals, asylums, and dispensaries are regularly visited and carefully attended by honest, honorable, and competent members of that profession whose credit and usefulness they should endeavor to extend, and not to impair?

Again, are not the clergy held in the highest respect and esteem by our profession at large? Do we not tender them our professional services gratuitously, and with free cordiality? Are not theological students, and the children of divines, permitted to attend the lectures of our medical colleges without the usual fees being required from them? For these and numerous other reasons—not urged in a boastful spirit, for it would but ill become us to ask credit for charitable acts which carry with them their own reward, and for which we desire no remuneration other than that afforded by a satisfied conscience, and the pleasure derived from the knowledge that we are fulfilling a great Christian duty—for these, then, and for many other reasons, I conceive that our profession has strong and peculiar claims on the preachers of religion for their countenance and support, and it appears to me that they should be the last men in the world to lend the influence of their sacred characters and position to those who are ever so ready to avail themselves publicly of both.

It is a notorious fact, that the venders of quack medicines, and what are usually called "advertising doctors," exert themselves to the utmost —and too often with success,—to obtain the signatures of clergymen, or certificates from them attesting to the high virtues of their medicines, or the superior skill and knowledge which they possess. In proportion to the number and influence of the clergymen whose interest they can thus bring to bear, is their success. So far is this system in some instances carried, that the fortunate individuals in whose favor they operate, succeed, in a comparatively short space of time, in amassing large fortunes. I do not pretend to assert that the success of these persons is to be at-

tributed to the influence of clergymen's certificates alone, for without a certain degree of practical knowledge in the other arts of gulling, and an abundant stock of assurance and cool impudence, their exertions could not be crowned with entire success. I am only maintaining that this is one of the most sought for and valuable adjuvants that the charlatan can obtain, as through its means he may, at least, hope to gain notoriety and consideration from congregations whose ministers recommend him and his drugs in terms of high praise and commendation.

In support of this assertion, and to illustrate how much importance is attached to a clergyman's name, I will allude to an advertisement which has long been a standing one in an extensively circulated daily paper. It is headed, appropriately enough, "Remarkable Cures," and after describing, very briefly, some three or four desperate cases, all of which were, of course, speedily and perfectly relieved, and which are well calculated to strike the minds of non-professional persons as being truly wonderful proofs of the dexterity and skill of the advertiser, it concludes with a certificate from no less than six reverend gentlemen, to the effect that they have witnessed his astonishing performances, and highly recommend him as "safe and skilful" in the treatment of the diseases which he professes to cure.

I attach more importance to an advertisement of this kind than I should probably do, were it not that the names of the reverend endorsers are known to the public, and considered by it as occupying respectable positions, in which they can command a certain degree of influence. I would ask the eloquent Baptist clergymen; the learned Catholic priest; and their reverend co-signers, what they conceive to be the object and aim of a notice of this kind? Whether they have thoughtlessly appended their names as an act of charity, and with the view of lending the assistance of their influence, to an individual whom they conscientiously believe to be worthy of their confidence and esteem? Whether it is from the desire of seeing their names daily circulating in print? Or whether it is that they truly think, that they are conferring a benefit on the public, in recommending to its notice and consideration, a person whom they *in their hearts* believe to be *better* instructed, and *better* able to afford relief in the class of diseases which he treats, than others? Are they sufficiently versed in the knowledge of our science to be able to vouch for the learning and skill of an operator? Or do they infer from the advertiser's diploma, which they have doubtless inspected, and which is presumed to have been obtained after a careful and sufficient examination, by those competent to judge of his capabilities, that they are at liberty to recommend him as both "safe and skilful?"

I might adduce numerous other instances, in support of the assertion, that the influence of the clergy is often used to further the objects of those who seek for notoriety and patronage through advertisements in the public prints, and to the positive detriment of the medical profession. The one instance, however, already cited, is amply sufficient to illustrate the fact, and there is no further necessity for particularizing.

It would scarcely be believed that clergymen, though they might be willing to sign certificates, and vouch for impostures, would so far forget their duties, and the sacred character of the religion which they profess, as to permit the churches over which they preside, and which are dedicated to the worship of God, to be used as theatres for the exhibition of shows and juggleries; and yet, that this is occasionally done, may be

easily proved, and I now hold an advertisement announcing, that, "by request," a *lecture on "Animal Magnetism"* will be delivered, on an evening indicated, in a certain church, belonging to a sect held to be one of the most devout amongst us; and this advertisement goes on to state that persons will be magnetized; and closes with the very significant notice that "twenty-five cents will be charged for admission."

The question may be asked, how can such a use of a holy temple, though admitted to be wrong, tend to the injury of the medical profession? I reply, is it not well known that these pretended clairvoyant magnetizers assume, unquestioned and unlicensed, the high duties of the Physician, and pretend, with the aid of something like supernatural lights, to be able to elucidate the most intricate pathological states, and suggest remedies to repair evils, the existence of which they are alone acquainted with? Do they not sometimes assume, or have awarded to them, besides his duties, the honored *title* of the Physician, and thus not only defraud the public, but do a positive injury to the profession of which they are supposed to be members? It is for these reasons, then, and because it is a profanation of the house of God, that we should call upon the clergy to pause, before they allow the temples committed to their charge to be violated in the manner that I have pointed out.

But in the remarks that I make on this subject, let it not be for a moment supposed, that I condemn or censure the whole mass of clergymen for the faults or errors of a few; I am well aware that the most respectable and worthy portion of the members of the holy order of religious instructors very rarely accord their influence to unworthy objects, or intentionally sanction measures calculated to degrade the standard of public morality, or act injuriously on the welfare of the general community. Still, as the evils of which I complain are no chimera of the imagination, and do in reality exist to an extensive degree, I have thought it both opportune and proper to point them out. By directing attention to the subject, we may lead educated and respectable clergymen, of extensive influence, to discountenance openly such irregular and overt acts on the part of their religious associates, which tend as well to the degradation of their own order, as they are calculated to act injuriously upon the interests of our Profession.

Of the influence of Quackery as operating to the injury of our profession here, I shall have but little to say. That it occasions a large pecuniary loss to us cannot be denied; but when practised openly, and by persons not *bonâ fide* members of the faculty, I do not conceive that it acts in a manner otherwise hurtful to our interests or reputation.

It is only when degenerate members of our own body condescend, from the desire of pecuniary gain, to embrace the trade of the charlatan, that they are capable for a time of influencing public opinion, and may, until found out, which they invariably have been, and always will be, sooner or later, produce an impression injurious to our general character and interests.

I consider it bad policy, as well as bad taste, to indulge in abusive language against this class of persons, who should always be left to the upbraidings of their own consciences, and that severe and most keenly felt punishment which consists in an entire exclusion from their society, and from all association with their professional contemporaries. They may succeed for a time, and accumulate money, but what shall repay them for loss of caste, and that inward feeling of shame and degradation

which they must experience on finding themselves despised and rejected by their fellows, and eventually sinking to an oblivion from which they may never again hope to emerge—leaving behind them when they die, as an inheritance to their children, a patrimony which, though it may be rich in the blessings of the world, can never be disconnected from the recollection of the manner in which it was obtained?

These persons are most truly to be pitied; and their bowed head, and downcast look, evincing shame and inward suffering, should rather excite in our breasts feelings of commiseration than of ire; and although we can never permit ourselves to regard them in the light of fit associates, we should charitably hope that they have been led astray, and that their minds are so constituted as to render them incapable of experiencing, in its full force, that acute sense of degradation which would be so severely felt by honorable men of cultivated intellect.

That some few of them honestly believe in the virtues and superior advantages of a system that they may have adopted, is most certain; but that numbers of them profess what they cannot believe, and do not practise, is equally certain, and may be easily proved; it is the latter class to whom I would have these remarks apply—those who make use of a novelty as a stepping stone to success, and cheat the public by promising to pursue a course which they know to be wrong, and which they rarely, if ever, in reality follow.

There can be no harm in it, nor can a physician be justly blamed for practising according to any method that he may conclude, after proper study and inquiry, to be best; it is his duty to follow the course that he conscientiously believes will prove most conducive to the interests of his patients; but, then, he should do so quietly and unostentatiously—as a man who is entitled to the privilege of judging and acting independently—and scorn to call himself, or allow others to call him, the blind follower of a master, or of a particular and exclusive system, for the purpose of attracting attention, and gaining notoriety; thus acting the part of an impostor, whose province and aim is to deceive. The answer of a friend of mine to a lady, when questioned by her as to what "*class* of doctors" he belonged, will illustrate what I desire to say better, probably, than I have explained. "Madam," said he, "I am a physician who has studied his profession in all its branches and departments; I have examined, and continue to examine, every new theory and everything proposed as useful, and I practise in all instances for the good of my patients."

I would congratulate the Society upon the gradual declension from public favor and sympathy which Animal Magnetism, Homœopathy, and similar delusions are now daily experiencing, as it evinces a return of the sound common sense of the people, which has been for a time diverted by plausible theories and amusing practical exhibitions.

All that might in any way be gleaned of useful or interesting, from these innovations, has long since been adopted by the regular profession, and incorporated into our system of treatment. As was our duty, we have examined and studied thoroughly, as it has ever been our interest to do, everything that has been supposed to be calculated to extend our field of knowledge, or enable us to render ourselves more useful to our fellow creatures; what little wheat has been met with, has been most cautiously and industriously separated from the mass of chaff with which it was encumbered, and although the grains are found to be both small

and imperfect, they may possibly produce, if properly cultivated, some little fruit.

No sooner, however, is one method of imposture on the wane, than we find another brought forward to supply its place; so it has ever been, and so it must and will be always. Homœopathy, lately so fashionable amongst us, finding no resting place in Europe, at least out of Germany —scouted in France, where its absurdities were fully demonstrated by positive and actual experiment—rejected in Italy—discountenanced in England—some few years since took its flight across the Atlantic, and implanted itself in our soil. Here it took root, and after supplanting Thomsonianism, and making sad inroads in the fertile fields of the "Herb Doctors," it flourished for a time. Its day, however, is now nearly at an end, and it is rapidly retiring before the enterprising and successful rivalry of Hydrosudopathy, and the Crono-Thermal system, which, likewise, will have their turn, and flourish until novelties of more recent date, such as the Russian "Mud Baths," or perhaps a revival of the old "Water Casting," come to usurp their places and their profits.

All the endeavors of the profession can never accomplish much against new and plausible medical theories, and by far the most prudent and the wisest course is to abstain from all abuse against them. When asked his opinion of their merits, it is the duty of the upright and conscientious physician to express it frankly, and if in disapprobation, let it be done in courteous language, devoid of all abusive epithets. By such a course we are sure to obtain a fair hearing; and our friends will be ever ready to acknowledge the force of remarks and reasoning directed to their understanding, and which shall be unaccompanied by evidences of personal pique, or the expression of feelings of dislike and hatred, evincing undue prejudice, or a desire to condemn unheard.

Having indicated, in a very imperfect manner however, some few of the many evils that exist in our profession, and endeavored to convey a just impression of its present condition, and of some of the causes which operate to injure it, I shall not trespass longer on your time by offering suggestions as to the best and most proper means for remedying them. The most important, and perhaps the only subject entirely within the control of the profession, is that of education. But I leave this very difficult and embarrassing question to the united wisdom of the gentlemen who will, I hope, shortly assemble in our city for the special purpose of investigating it. Amongst them there will doubtless be found competent and able representatives of this Society.

APPENDIX.

Regulations of the Principal Medical Schools in the United States and in Europe, in Relation to the Degree of M.D.

I.—UNITED STATES.*

UNIVERSITY OF PENNSYLVANIA.—"The following are the Rules in force in relation to the Degree of Doctor of Medicine.

"I. The candidate must have attained the age of twenty-one years, have applied himself to the study of Medicine for three years, and have been, during that time, the private pupil, for two years at least, of a respectable practitioner of Medicine.

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*It will be perceived that the oldest and the most flourishing of our Schools have been selected as standards; their course of instruction and requirements are believed to be quite as extensive as those of any Colleges in the country.

"2. The candidate must have attended two complete courses of the following lectures in this Institution:—Anatomy; Theory and Practice of Medicine; Materia Medica and Pharmacy; Chemistry; Surgery; Obstetrics and the Diseases of Women and Children; Institutes of Medicine.

"3. The candidate must also have attended one course of Clinical Instruction in the Philadelphia Hospital (*Blockley*), or the Pennsylvania Hospital, or some other Institution approved of by the Faculty of Medicine.

"4. Medical students who have attended one complete course in a respectable Medical School, where the attendance on two complete courses is necessary to a degree, where the same branches are taught as in this, and which is placed upon the *ad Eundem* of this school, are permitted to become candidates by an attendance here upon one full course. They are also exempted from the payment of fees upon attending here a second term.

"5. When a candidate applies to the Dean for admission, he must exhibit his tickets to prove that the above Rules have been complied with.

"6. The candidate, at the time of his application, must deliver to the Dean of the Medical Faculty a Thesis, composed by himself, on some medical subject. This thesis is referred to one of the Professors, who shall examine the candidate upon it, and make his report thereon to the Medical Faculty.

"7. When a candidate is rejected, his essay will be retained by the Medical Faculty.

"8. When a candidate withdraws his essay before examination, he will, upon reapplication, be placed at the foot of the list.

"9. The essay must be in the candidate's own hand-writing, and must be written uniformly on letter paper of the same size, the alternate pages being left blank.

"10. General bad spelling in a Thesis, or general inattention to the rules of grammar, will preclude a candidate from examination for a degree

"11. A Thesis may be published by the candidate if he desire it, the permission of the Professor by whom he was examined thereon being first obtained; but no alteration shall be afterwards made in such thesis without the consent of the said Professor.

"12. The voting on the case of each candidate is by private ballot, and three negative votes shall reject him.

"13. The candidate shall pay the fees of graduation, at the time of his examination, or before receiving notice of his success; and before his name can be entered on the Register of passed candidates, for the purpose of being reported to the Board of Trustees and included in the mandamus for a Degree.

"14. Candidates who have passed their examination, and in other respects complied with the regulations, are to be reported by the Dean to the Provost, who will communicate such report to the Board of Trustees, in order that, if approved of by them, their mandamus be issued for conferring the Degree.

"15. The Degree will not be conferred upon a candidate, who absents himself from the public Commencement, except by special permission of the Medical Faculty.

"16. Graduates of Medical Schools, on the ad Eundem list, by attending, on a full set of Tickets, one complete course in this Institution, are put upon the same footing with students who have attended two complete courses here.

Rules of Examination for the Degree of Doctor of Medicine.

"The names and essays of the candidates are to be presented to the Dean on or before the first day of February in each year. The candidates are then to be divided, either by their own arrangement or by that of the Dean, into classes of eight persons each.

"These classes will be designated numerically by lot, and then formed into groups of seven each.

"The examinations will begin regularly on the last Monday of the Session.

"No person's name will be received on a class unless his essay be in possession of the Dean; nor is his name to be attached to a class by any other than the Dean, unless he shall have signified his desire to that effect.

"The classes are to call at the houses of the several Professors, or at some other place designated by the latter; and when in attendance, each of the individuals composing a class is to be examined separately, and in the order of his name on the list of his class.

"Each Professor is to keep a list of those examined by him, and opposite to the name of each candidate is to note the result of his examination, with the view to vote in the affirmative or negative, as to his qualifications for the Degree.

"As the examination of each group of classes shall be completed, the Faculty will meet; the names of the candidates examined are to be read by the Dean; and as each name is called, the Professors are to consult their memoranda, and if no remarks be made, are to proceed to vote by ballot. If there should not be three negative votes, the candidate is to be considered as having passed, and is to be entitled to his Degree. Should three black balls be cast, the candidate is not to be considered as definitively rejected, but is to have the privilege of another examination before the whole Faculty in joint session.

"A candidate who may not have succeeded in the first ballot shall, upon declining an examination before the Faculty in joint session, have the privilege of withdrawing his Thesis, without being considered as rejected.

"If, upon the name of a candidate being called out, one or more of the Faculty have remarks to make in relation to his qualifications, they are to be heard before the vote is taken.

"The candidates in classes being thus disposed of, the Faculty will then proceed with those who may prefer an examination before the Faculty in joint session, and afterwards with those who, having received three negative votes, may still choose to avail themselves of the opportunity of a final examination offered by the Faculty.

"Formal notice of a successful examination will be delivered upon the fees of graduation being paid, after which the candidate will insert his own name with the title of his Essay, upon the Register of Graduates. No diploma will be made out, or passed candidate reported to the Board of Trustees, except from an entry upon the Register.

"If a Thesis be found remarkable for any good quality, the fact is to be reported by the Professor having charge of the Thesis, to the Faculty at their meeting, who may take upon it such action as they may deem advisable."—*Extract from the Report to the Alumni of the School*, 1845.

College of Physicians and Surgeons of the City of New York.—"*Graduation.*—Candidates for the Degree of Doctor of Medicine must have attended two full Courses of Lectures, the last in this College; they must also have studied Medicine three years under the direction of a regular physician, and have attained the age of twenty-one. Each candidate is required to write a Thesis on some subject connected with the Science of Medicine, and to deposit it with the Secretary of the Faculty. Previous to his examination, full and formal certificates of time and age must be furnished.

"The examination of candidates takes place semi-annually. That for graduation in March, on or before the first of March; and that for graduation in the fall, on the second Tuesday in September."—*Extracted from Catalogue of* 1845–46.

There are six Professors attached to this school, besides the President; the subjects taught are the same as at the University of Pennsylvania; the Lectures commence on the 1st November, and are continued until 1st March. There are likewise fall and spring courses of lectures, to which students are admitted free of charge.

Medical Department of the University of New York.—"*VI. Regulations for the Terms of Lectures, &c. Requisites for Graduation.* The lectures commence on the last Monday of October, and are continued until the last day of February following.

"The examination for degrees will commence about the 1st of March, and will be continued daily, until all the candidates shall have been examined.

"The following are the requisitions for the Diploma:

"1st. The Candidate must be 21 years of age.

"2d. He must have attended two Courses of Medical Lectures; one of which must have been delivered in the Medical Department of the University of New York.

"3d. The Candidate must have studied Medicine for three years (the terms of attending Lectures being included in these), under the direction of a respectable Medical Practitioner.

"4th. He must write a Medical Thesis, either in the English, Latin, or French language.

"Two Commencements take place annually in the University, at either of which Candidates who have complied with the above requisitions may graduate.

"The first takes place early in the month of March, and the other about the middle of the month of July. The great body of the Candidates will, no doubt, graduate at the Spring Commencement; but those who wish to postpone it will have the opportunity of coming forward in July.

"The examination for Degrees is conducted in private by the Professors individually."—*Extract from Annual Announcement of Lectures, &c.*, 1844–5.

There are six Professors attached to this school; subjects taught, same as in the two above-mentioned institutions.

JEFFERSON MEDICAL COLLEGE, PHILADELPHIA.—"*Regulations, &c.*—The regular courses of lectures commence on the first of November, and end on the last day of February.

"During the month of October, the anatomical rooms are open, and the Professor of Anatomy and the Demonstrator give their personal attendance thereto. Clinical instruction on Medicine and Surgery is likewise given at the Dispensary of the College.

"The examination of candidates for graduation commences on the first of March.

"The candidate must be of good moral character, and at least twenty-one years of age.

"He must have attended two full courses of lectures in some respectable Medical School, one of which, at the least, shall have been in this College, and must exhibit his tickets, or other adequate evidence thereof, to the Dean.

"He must have studied medicine for not less than three years, and have attended at least one course of clinical instruction in an Institution approved by the Faculty.

"He must present to the Dean of the Faculty a thesis of his own composition, correctly written, and in his own handwriting, on some medical subject, and exhibit to the Faculty, at his examination, satisfactory evidence of his professional attainments.

"If, after examination for a degree, the candidate, on ballot, shall be found to have received three negative votes, he shall be entitled to a fresh examination. Should he decline this, he may withdraw his thesis, and shall not be considered as rejected.

"The degree will not be conferred upon any candidate who absents himself from the public commencement, except by special permission of the Faculty."—*Extract from Catalogue of Jefferson Medical College*, 1845.

This College has seven Professors, and the subjects taught by them are the same as at the University of Pennsylvania.

II. GREAT BRITAIN.

[The following regulations are extracted from the last circular of the Edinburgh University, and from the "Student's Guide," published in Edinburgh and London.]

UNIVERSITY OF EDINBURGH.—"*Statutes of the University of Edinburgh relative to the Degree of M. D.*—Sect. I. No one shall be admitted to the examinations for the degree of doctor of medicine who has not been engaged in medical study for four years, during at least six months of each, either in the University of Edinburgh, or in some other University where the degree of M.D. is given; unless, in addition to three Anni Medici in an University, he has attended, during at least six winter months, the medical or surgical practice of a general hospital, which accommodates at least eighty patients, and during the same period, a course of practical anatomy; in which case three years of University study will be admitted.

"Sect. II. No one shall be admitted to the examinations for the degree of Doctor who has not given sufficient evidence,—

"1. That he has studied, once at least, each of the following departments of medical science, under professors of medicine in this or in some other university, as already defined, viz.:—Anatomy; chemistry; materia medica and pharmacy; institutes of medicine; practice of medicine; surgery; midwifery, and the diseases peculiar to women and children; general pathology; practical anatomy (unless it has been attended in the year of extra-academical study allowed by Sect. I.)—during courses of six months. Clinical medicine, that is, the treatment of patients in a public hospital, under a professor of medicine, by whom lectures on the cases are given—during a course of six months, or two courses of three months. Clinical surgery; medical jurisprudence; botany; natural history, including zoology—during a course of at least three months.

"2. That in each year of his academical studies in medicine, he has attended at least two of the six months' courses of lectures above specified, or one of these and two of the three months' courses.

"3. That, besides the course of clinical medicine already prescribed, he has attended, for at least six months of another year, the medical or surgical practice of a

general hospital, either at Edinburgh or elsewhere, which accommodates not fewer than eighty patients.

"4. That he has attended for at least six months, by apprenticeship or otherwise, the art of compounding and dispensing drugs at the laboratory of a hospital, dispensary, member of a surgical college or faculty, licentiate of the London or Dublin Society of Apothecaries, or a professional chemist and druggist.

"5. That he has attended for at least six months, by apprenticeship or otherwise, the out-practice of a hospital, or the practice of a dispensary, or that of a physician, surgeon, or member of the London or Dublin Society of Apothecaries.

"Sect. III. No one shall obtain the degree of doctor who has not studied, in the manner already prescribed, for at least one year previous to his graduation in the University of Edinburgh.

"Sect. IV. Every candidate for the degree in medicine must deliver, before the 24th of March of the year in which he proposes to graduate, to the dean of the faculty of medicine,—

"*First.* A declaration, in his own hand-writing, that he is twenty-one years of age, or will be so before the day of graduation; and that he will not be then under articles of apprenticeship to any surgeon or other master.

"*Secondly.* A statement of his studies, as well in literature and philosophy as in medicine, accompanied with proper certificates.

"*Thirdly.* A medical dissertation composed by himself, in Latin or English; to be perused by a professor, and subject to his approval.

"Sect. V. Before a candidate be examined in medicine, the medical faculty shall ascertain, by examination, that he possesses a competent knowledge of the Latin language.

"Sect. VI. If the faculty be satisfied on this point, they shall proceed to examine him, either *vivâ voce*, or in writing; *first*, on anatomy, chemistry, botany, institutes of medicine, and *natural history* bearing chiefly on zoology; and, *secondly*, on materia medica, pathology, practice of medicine, surgery, midwifery, and medical jurisprudence.

"Sect. VII. Students who profess themselves ready to submit to an examination on the first division of these subjects, at the end of the third year of their studies, shall be admitted to it at that time.

"Sect. VIII. If any one, at these private examinations, be found unqualified for the degree, he must study for another year two of the subjects prescribed in Sect. II., under professors of medicine, in this or in some other university, as above defined, before he can be admitted to another examination.

"Sect. IX. Should he be approved of, he will be allowed, but not required, to print his thesis; and if printed, forty copies of it must be delivered before the 25th day of July to the Dean of the medical faculty.

"Sect. X. If the candidate have satisfied the medical faculty, the Dean shall lay the proceedings before the Senatus Academicus, by whose authority the candidate shall be summoned, on the 31st of July, to defend his thesis; and, finally, if the Senate think fit, he shall be admitted, on the first lawful day of August, to the degree of doctor.

"Sect. XI. The Senatus Academicus, on the day here appointed, shall assemble at ten o'clock, A.M., for the purpose of conferring the degree; and no candidate, unless a sufficient reason be assigned, shall absent himself, on pain of being refused his degree for that year."

Royal College of Surgeons, London.—"I. Candidates will be required to bring proof: 1. Of being twenty-two years of age. 2. Of having been engaged six years in the acquirement of professional knowledge. 3. Of having studied Anatomy and Physiology, by attendance on lectures and demonstrations, and by dissections, during two anatomical seasons. 4. Of having attended at least two courses of lectures on Surgery, delivered in two distinct periods or seasons, each course to comprise not less than sixty lectures. 5. Of having attended lectures on the Practice of Physic, on Chemistry, and on Midwifery, during six months; and on Botany and Materia Medica during three months. 6. Of having attended during twelve months the Surgical Practice of a recognized hospital in London, Dublin, Edinburgh, Glasgow, or Aberdeen; or for six months in any one such hospital, and twelve months in any recognized provincial hospital.

"II. Members and Licentiates in Surgery of any legally constituted College of Surgeons in the United Kingdom, and Graduates in Surgery of any University requiring residence to obtain degrees, will be admitted for examination, on producing their diploma, license, or degree, together with proofs of being twenty-two

years of age, and of having been occupied five years in the acquirement of professional knowledge.

"N.B. Certificates will not be recognized from any hospital, unless the Surgeons thereto, or a majority of them, be members of one of the legally constituted Colleges of Surgeons in the United Kingdom; nor from any School of Anatomy, Physiology, Surgery, or Midwifery, unless the respective teachers be members of some legally constituted College of Physicians or Surgeons in the United Kingdom.

"Certificates will not be received on more than two branches of science from one and the same lecturer, but Anatomy and Physiology, Demonstrations and Dissections, Materia Medica and Botany, will be respectively considered as one branch of science.

"In the certificates of attendance on Hospital Practice, and on Lectures, the dates of commencement and termination are to be inserted in words at full length.

"All the required certificates are to be delivered at the College ten days before the candidates can be admitted to examination."

III.—IRELAND.

UNIVERSITY OF DUBLIN.—*For the Bachelor's Degree.*—"The candidate must present to the Registrar of Trinity College certificates of having attended lectures on the following branches, viz., Anatomy, Surgery, Chemistry, Botany, Institutes of Medicine, Practice of Medicine, Materia Medica, and two courses of Clinical Lectures, given in immediate succession. These certificates must all be taken from the Professors in Trinity College, and the King's Professors, appointed by the Act for establishing a complete School of Physic in Ireland, unless some three certificates for the same courses in the University of Edinburgh be produced, which are admitted by the Board: but the certificates from any other university or college, or from any private school, are not received as qualifications.

"The Statutes, after stating generally, that three years must elapse after taking the degree of A.B. before that of M.D. can be obtained, provide that it may be taken in three different ways:—

"1. If any one commence his *medical* studies immediately on his entrance or matriculation, then he may seek the degree of M.B. after twenty-four terms—(*that is, six years*).

"2. If he begins after taking the degree of A.B., then after three years.

"3. If he begins after taking the degree of A.M., then after two years.

"On the production of the above certificates by the Registrar, the Board grant permission to the candidate to be examined by the four Medical Professors of the University, viz., the Regius Professor of Physic, the Professor of Anatomy, the Professor of Chemistry, and the Professor of Botany, provided the proper time, according to the statutes, has elapsed from the period of his graduating as a Bachelor of Arts, which examination is conducted in the Latin language. If the candidate be found qualified, the Professors individually certify the same, on which he is permitted to perform the exercises mentioned in the statutes, and at the next half-yearly commencement, the degree of Bachelor of Medicine is conferred on him by the Vice-Chancellor of the University.

"If the degree of Master of Arts be taken previously to that of Bachelor of Medicine, the degree of M.B. can be obtained in either the University of Oxford or Cambridge, which qualifies the person for being elected a Fellow of the College of Physicians of London, to whom several privileges and advantages belong.

"*Doctor of Medicine.*—The degree of M.D. may be taken in three different ways, as was stated of the degree of M.B.:—

"1. Those who obtain the degree of M.B. after twenty-four terms, or six years, from matriculation, must complete six other years before they can obtain the degree of M.D.

"2. Those who have previously taken the degree of A.B. may obtain M.D. in five years after taking the degree of M.B.

"3. Those who have previously taken the degree of A.M may obtain M.D. in four years after taking the degree of M.B.

"The candidate for the degree of Doctor of Medicine is required to dispute in the Hall, and to write and print a thesis.

"The degrees of Bachelor and Doctor of Medicine from Trinity College, rank with the degrees of M.B. and M.D. of Oxford and Cambridge."

IV.—FRANCE.

PARIS SCHOOL OF MEDICINE.—There are eighteen distinct chairs established in the Paris School of Medicine, and twenty-six regularly appointed Professors, who are aided in the discharge of their duties by a number of Agrégés or assistant Professors.

"*Courses.*—The instruction is at present embraced in eighteen courses of lectures, which are divided into a winter and summer session. The former commences with the month of November and terminates in March; the latter begins on the first Monday in April, and is continued until the end of July; August, September and October are a vacation. The winter course comprises lectures on Anatomy, Medical Chemistry, Legal Medicine, Surgical Pathology, Medical Pathology, General Pathology and Therapeutics, Clinical Surgery, Clinical Medicine, and Clinical Midwifery.

"The summer session embraces courses on Medical Physics, Hygiene, Medical Natural History, Accouchements, Physiology, Surgical Pathology, Medical Pathology, Pharmacy and Organic Chemistry, Therapeutics, Pathological Anatomy, Operative Surgery, Clinical Surgery, Clinical Medicine, and Clinical Midwifery.

"The clinical lectures are delivered at the hospitals during five mornings of the week, and usually commence about nine o'clock, or immediately after the visit to the wards. All the other lectures are delivered at the School of Medicine, and between the hours of ten and four o'clock.

"*Inscriptions and Qualifications required from Students.*—An inscription means the registering one's name in a register kept for the purpose. This has to be repeated every three months, and on each occasion the student will receive a card certifying to the fact of his having inscribed. When a young man, whose intention it is to study medicine, presents himself at the bureau of the faculty to take out his first inscription (which, as well as in the case of all subsequent ones, must be done in person), he is required to deposit with the secretary the following documents:

"1st. His certificate of birth.

"2d. His parent's or guardian's consent for him to study medicine, should he be a minor.

"3d. A certificate of his morality.

"4th. His diploma of Bachelor of Letters.*

"A diploma of Bachelor of Sciences† is required after the fourth inscription and prior to the first examination.

"If the father or guardian of a student does not reside in Paris, he must introduce some known and respectable citizen, who is willing to become responsible for his good conduct.

"The full term of study comprises four years, or sixteen quarterly terms.

"*Examinations.*—Every pupil, before he can gain a diploma from the Paris faculty of medicine, must submit to five examinations, one of which takes place at the end of his first year of study, and the rest at stated intervals after.

"The first examination is on the subject of Chemistry, Physics, and Medical Natural History.

"The second embraces Anatomy and Physiology.

"The third, Internal and External Pathology.

"The fourth, Hygiene, Legal Medicine, Pharmacy, Materia Medica, and Therapeutics.

"The fifth and last is a practical one, and is conducted at the hospital of the faculty (*hôpital des cliniques*); it consists in selecting two patients from the wards of the hospital, and examining and prescribing for them in the presence of a committee of three professors.

"The first four examinations are conducted by two professors and one assistant professor, and three candidates are examined at the same time; for the fifth examination only two candidates at a time are admitted.

"Physicians and surgeons, graduates of foreign schools, who may be desirous of obtaining a diploma from the Paris faculty, must submit to all the examinations required from students; they must likewise exhibit their diplomas of Bachelor of Letters and Bachelor of Sciences. If they can show, by proper certificates, that they have studied in a foreign university during two years longer than is required in the Paris faculty, they are entitled to an immediate examination, on the payment of all

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* In lieu of the diploma of Bachelor of Letters, the student may submit to an examination, of one hour's duration, on the French, Greek, and Latin languages, general history, and geography.

† For the degree of Bachelor of Sciences, the examination is made on Mathematics, Chemistry, Zoology, Botany, Physics, and Mineralogy.

charges exacted for the five separately. If they cannot produce proof of having been six years engaged in study, then such time as they have studied will be allowed them, in the proportion of two-thirds; for instance, proof of three years study abroad is admitted as equivalent to two years in the Paris school, and hence attendance on lectures will be required for two years only, and so on. The King has the privilege of granting unconditional licenses to foreigners to practise in France.

"The examinations are conducted in French, and by the professors themselves, or by the assistant professors (agrégés). A student is always notified, four days beforehand, of the time appointed for an examination; and if he does not present himself at the hour indicated, he is not allowed to apply for another examination until after the expiration of three months, which are thus lost to him.

"*Theses.*—By an order of the Council Royal of Public Instruction (1838), the theses of all candidates for medical degrees are to consist of written answers to four questions, which are to be drawn for by lot. The questions embrace the subjects of the physical sciences, anatomy and physiology, surgery and medicine. A number of questions on each of these branches are proposed by the Council Royal, and those relating to the different subjects are deposited in separate urns, from each of which the candidate draws one in the presence of the Dean of the faculty, and after having undergone his second examination. The thesis is to be deposited in the hands of the Dean when the student offers himself for his final examination, and it is referred to some member of the faculty to examine, prior to its being supported in public by the author.

"All theses must be printed at the expense of the student."—*Hospitals and Surgeons of Paris.*

Notwithstanding the severe restrictions that are now imposed in France, the national medical congress which lately met at Paris, has recommended to the government, that additional requirements shall be made of candidates for the M.D. degree, and that the courses of instruction shall be still further enlarged.

ART. II.—*An Account of the African Fever as it prevailed on board the U.S. Ship Preble, during her late Cruise, with an Abstract of forty-three Cases.* By S. WILSON KELLOGG, M.D., U.S.N., Surgeon of the Vessel, communicated in a letter to the Editor.

DR. LEE—DEAR SIR: The African fever made its appearance on board the U. S. Sloop of War Preble, on the 19th of Nov., 1844, while at anchor in the river Jeba, west coast of Africa.

The ship was ordered on the 26th of October to proceed from Porto Praya to Bissao, which is a small settlement on the northern bank of the river Jeba, about 51 miles from the ocean, belonging to the Portuguese government. The town is surrounded by a low, marshy country, filled with rice and mangrove swamps. In front of the town is a large mud bank which at the ebb-tide is exposed to the rays of an almost vertical sun, sending forth a peculiar but very disagreeable effluvia, particularly when disturbed by any cause. The tide in the river is very rapid, and the water exceedingly turbid. During the day there was usually a fine refreshing sea breeze up the river, but at night the wind hauled to the northward, blowing directly off the land, laden with miasm and offensive exhalations from the swampy grounds. The weather was extremely hot, but damp, and the rainy season had just ended. During the period of our stay here, from Nov. 5th to Nov. 23d, there were occasional heavy rains, with violent gusts of wind, called there "*tornados.*" This place is considered to be one of the most unhealthy places on the African coast, and the fever, usually, is extremely malignant and fatal. The ship was anchored about a quarter of a mile from the shore, and the crew were allowed to sleep on the spar-deck. They were also much exposed

in painting the ship, and in boat expeditions to assist the garrison who were at war with the natives. The men were turned out of their hammocks at night, and sent off in the boats, and kept exposed for hours to the damp night air in these expeditions. It was, therefore, not at all wonderful, that exposed as the crew were to the sources of this disease, it should have made its appearance in a malignant and severe form.

The first case occurred on the night of the 18th of Nov. In the morning I reported the fact to the Commander of the ship, and recommended an immediate removal. The fever gradually and steadily increasing, the ship was gotten under weigh on the 23d for Porto Praya, where we arrived on the 29th, and sailed the next day for Porto Grande in the Island of St. Vincent (Cape de Verde Islands), where we came to anchor on the 3d of December. The first death took place on the afternoon of this day, and the disease appeared now to assume a more malignant and unmanageable form.

The governor of this island having granted permission, houses were hired, and twenty-two of the worst cases were immediately landed. Three days after, the flag ship of the squadron came in, and the Commander caused additional houses to be hired and tents to be erected, so as to accommodate all the sick, who were sent on shore, with the exception of the Commander and 1st Lieutenant, who were too ill to be moved, and were more comfortably accommodated on board than they could have been on shore.

The attack of the fever was usually in the night, in most cases preceded by premonitory symptoms, such as nausea, loss of appetite, slight pains in the head, back and extremities, weariness, debility, lowness of spirits, &c., &c. In some cases, however, the patients said they felt perfectly well up to the time of the attack.

At the commencement of the fever there was, generally, a sensation of chilliness, in most cases slight, but occasionally severe, almost amounting to rigors. This chilliness was quickly followed by a hot burning feeling, severe pain in the head, back and extremities (chiefly in the ancle and knee-joints, and calves of the legs). In the early stage, the pain in the head was rarely severe, but almost every patient complained bitterly of "sharp, darting pain" in the lumbar region. In this stage the features were swollen, flushed, and expressive of pain. The eyes uniformly presented a dull, heavy appearance, were much injected and watery. A painful sensation in the eye-ball was frequently complained of,—in many cases the adnata were quite yellow, but this was generally in the latter stages,—the pupils were always much dilated—sometimes the one much more so than the other. This symptom was always noticed even in the mildest cases, and often continued during convalescence. The condition of the skin was various—in some cases, hot and moist—in others, cool and bathed in profuse sweat—in some few instances, however, it was hot and dry. The tongue was pale and tumid, showing the marks of the teeth on its edges—very moist and slightly tremulous—at the back part it was usually covered more or less with a dirty whitish or yellowish slime. The pulse was, in some cases, full, soft, and ranging from 80 to 110, but very quick—in others, small, feeble, rapid and quick —from 100 to 140. The different secretions were more or less disordered. During the first two days there was a slight but distinct remission in the morning; but on the 3d day there was usually a perfect remission, almost amounting to a complete apyrexia. The liberal use of

quinine at this period often checked the disease completely, but it more often failed, and the fever returned with redoubled violence.

The pains in the head, back and limbs, now became very severe—the face was flushed, the features assuming a wild, bewildered expression—the eyes very much suffused—pupils extremely dilated—the tongue more tumid, tremulous, and loaded with a thick fur of a dirty white or yellowish color, frequently changing to a dark brown, it was seldom dry or pointed, but usually very moist—the skin hot and bathed in sweat, or in some few cases hot and dry—thirst intense and urgent—breath and exhalations from the patient's body extremely offensive—respiration hurried and anxious, accompanied with deep sighing—pulse small, quick, feeble, varying from 100 to 140—great restlessness—the patients constantly tossing about, and sometimes throwing themselves out of their cots on to the floor. The intellect now became more or less affected; if neither delirium nor coma ensued, the mind was dull and confused—the temper irritable and fretful. There was often delirium or coma; or alternations of the two. The delirium was rarely of a fierce or troublesome character, but of the low muttering kind. If comatose, the patient would easily be roused, answered questions readily and correctly, but immediately after relapsed into his former drowsy semi-stupid state. In some cases the stomach was very irritable, instantly rejecting everything swallowed, or troublesome diarrhœa ensued—the discharges being thin and acrid, excoriating the anus and adjacent parts. The fever now showed but little tendency to remit, and had evidently assumed a continued type. If the patient survived for three or four days, the stage of exhaustion came on. The face lost its former flushed and bloated appearance, and became sunken and yellowish—the eyes dull and glassy—the pupils either extremely dilated or much contracted—the skin yellow, cold and clammy—the tongue lost its fur, and became clear, and of a fiery red color—sometimes dry and rough, but usually smooth and moist—pulse generally small, rapid and thready, but occasionally very frequent, quick and soft—communicating to the finger, the sensation of the artery being filled with air instead of a liquid. In some cases the patients became very delirious and noisy, insisting on getting out of their cots, and requiring constant watching to prevent them from getting up, and wandering about the apartment. One or more were severely injured by falling while attempting to walk without assistance. In other cases the patients were inclined to stupor, being in a listless, half drowsy state, and when roused said they "had no pain and felt perfectly well." This was a fatal symptom, as I do not recollect a single instance of recovery when it was present. During this stage an exhausting diarrhœa frequently ensued, with a tympanitic distension of the abdomen—the stools were frequent, liquid, small in quantity, dark colored, extremely offensive, and often passed involuntarily. Many of the patients suffered much from epistaxis, which was, occasionally, difficult to stop, and always proved very injurious. There was in some cases hemorrhage from the gums and mucous membrane of the mouth, and in one instance, large quantities of blood were passed *per anum*, producing fatal exhaustion. Towards the close of the disease there were often singultus; subsultus tendinum; extreme restlessness and jactitation; involuntary discharge of urine and fæces; generally terminating in profound coma, or convulsions.

This fever was characterized by extreme debility; in most of the cases syncope ensued whenever the erect position was attempted. The mind, from

the commencement of the disease, was very much depressed,—forebodings of fatal consequences, and an irritable and fretful temper, were noticed in nearly every case. Many of the patients gave themselves up as lost at the very commencement; and one was so impressed with the certainty of a speedy approach of death, that he obstinately refused to take any medicine. In a few instances petechiæ were observed.

Post-mortem Appearances.—Surface of the body, in most cases, very yellow; in the head, considerable engorgement of the vessels of the membranes; serous effusion between the arachnoid and pia mater, chiefly at the base of the cranium; the ventricles usually contained an unnatural quantity of fluid; the substance of the brain vascular; it was of the natural firmness, except in one instance, where it was exceedingly soft.

Thorax.—Lungs healthy; the heart, like all the other muscles, was softer than natural; and in some cases could be easily torn.

Abdomen.—Liver rather larger than natural, very dark colored, and softer than usual; gall-bladder distended with a healthy looking bile; stomach was slightly congested in spots, especially about the cardiac orifice, where the mucous coat was, in several cases, much softened; there was a considerable quantity of a thick gelatinous matter, of a dark brown or chocolate color, adhering to the inner coat of the stomach; small intestines were considerably congested, particularly the ileum, near the caput coli; the inner coat resembled that of the stomach; no ulceration nor other morbid alteration of the small glands of the intestinal canal were discovered, although carefully sought for; the large intestines appeared to be healthy.

The spleen, in every case examined, was much enlarged, and altered in structure; color very dark, almost black, and extremely soft, so much so, that slight pressure between the fingers was sufficient to reduce it to a complete pulp; the other organs appeared to be natural. The blood was, uniformly, very fluid and thin; resembling weak claret and water, both in color and consistency; in no instance were any coagula found in any part of the body.

In the treatment of this fever, I did not venture to use the lancet, so highly recommended by writers, in the fevers of hot climates, as the symptoms from the very commencement appeared to forbid abstraction of blood by general bloodletting; and I have since been informed that it has been universally condemned by those who have had any experience in the treatment of this form of fever. I found that epistaxis, when it happened, as it did in several cases very early in the disease, was uniformly injurious, by increasing the debility so much to be dreaded in the latter stages. Local bloodletting was, however, very beneficial in relieving congestions of the viscera, and cups were applied to the temples, back of the neck, epigastrium, and over the region of the liver and spleen, with excellent effect. Blisters were freely employed, especially during the latter stages, when it was deemed prudent not to use cups, and were often of the greatest service.

Cathartic medicines to evacuate thoroughly the alimentary canal were necessary, as the morbid and irritating nature of its contents evidently aggravated the disease. Those of a mild nature, to merely empty the intestinal tube, and to gently stimulate the biliary organs, such as the mass hydr. or calomel in combination with rhei, or ext. col. c., were usually employed in the first stage only; as later in the disease there was always a disposition to irritability of the stomach and bowels. If the

bowels required moving after the first few days, the mildest laxatives only were resorted to; and oftentimes the greatest caution was necessary in the employment of these; mild and unirritating enemata were often beneficial, and could be administered without any risk. After the bowels were freely evacuated, the use of mercury in small and frequently repeated doses, so as to bring the system under its influence, was commenced; having found, as soon as the gums showed the effect of the remedy, that the disease assumed a favorable aspect (only one case having proved fatal after the mouth became touched). As soon as the breath showed the peculiar fetor, and the gums began to be tender, the medicine was immediately suspended; but, notwithstanding, in several instances profuse and troublesome salivation ensued. To quiet the irritability of the stomach and alleviate the distressing thirst, effervescing draughts were given; they were exceedingly grateful to the patients, and relieved more effectually the terrible thirst, so distressing to the poor fellows, than anything else that could be obtained. When diarrhœa came on, mild astringents were employed. Evaporating lotions to the head, and sinapisms to the feet, were useful in relieving the headaches.

As soon as a remission was evident, quinine was largely and freely employed, either in solution, or in combination with blue mass and rhei; I preferred the latter form, as the patients took it more willingly, and it seldom offended the stomach. In consequence of the small quantity of quinine in the squadron, and the utter impossibility of procuring it in the island, I was compelled to resort to a variety of stimulants and bitters, but nothing could supply the place of quinine; bark, and indeed all bitter infusions and tinctures, caused so much nausea and irritability of stomach, that I was obliged to refrain from using them.

In the latter or sinking stage, carb. ammon., either alone or in combination with camphor, wine, brandy, sinapisms to the feet and ancles, blisters to the region of the heart, epigastrium, or inside of the thighs, were the chief remedies resorted to, and in several apparently desperate cases, with complete and most gratifying success. Want of sleep was a very troublesome and annoying symptom during the last stage, and likewise in convalescence; to relieve this, opium and morphia in various forms were prescribed, but without much service; causing headache, thirst, loss of appetite, and costive state of the bowels. I found the ext. and tr. hyos. to agree better, producing comfortable and refreshing sleep, without being followed by the above mentioned unpleasant consequences.

Convalescence was remarkably slow and tedious, the patients gaining strength very slowly; months elapsed before they could be considered as fairly free from the effects of the fever. Relapses were also very frequent, being produced by the slightest causes, such as exposure to the sun, error in diet, excitement of mind, fatigue, wet clothing, costive bowels, &c. These relapses were usually mild; many of them assuming an intermittent form; either the quotidian, tertian, or a complication of the latter. These were uncommonly obstinate, although the usual remedies were freely and largely administered. A voyage to the north, and a run on shore at the Canary Islands, appeared to be of more benefit than medicines.

Those who have resided on the African coast, and have had an opportunity of becoming acquainted with its diseases, describe three different forms of fever prevalent among foreigners, viz. :

1st. The intermittent, in all its different varieties; it is usually a sequel

of the other fevers, or attacking them who are acclimated. It is exceedingly obstinate and difficult to cure,—in fact, the only permanent cure is a departure from the coast to some healthier region.

The second form may be deemed the climatorial, generally prevailing among the crews of vessels cruising or trading along the coast. This partakes more of the inflammatory fever than the third species, and will occasionally bear the loss of blood with advantage. When properly treated it yields readily, and is seldom fatal.

The third is one of the worst, if not the most fatal of all fevers, when in a congested and malignant form, and is usually denominated, *par excellence*, the "African Fever." By many it is considered identical with the worst variety of the yellow fever of the West Indies. On board of the Preble it appeared in many of the symptoms to be similar; there was however in no case anything like black vomit. In Houston's case, as well as in others, the skin was as yellow as in the West India fever; the red watery eye; the pale, tumid, tremulous tongue, and the hemorrhage from the gums, bowels, &c.; all are symptoms of the real yellow fever. I have been informed that often the black vomit is present, as was the fact on board the English Steamer Eclair. I shall not at present discuss the identity of this with the yellow fever of the West Indies. This form of fever is never seen on board of ships, unless they enter the rivers, or some of the officers or crew spend a night or two on shore. Few, it is said, escape an attack who sleep on shore even for one night only. Although it prevails all along the whole coast, it is much more violent and fatal in towns situated on the banks of the rivers. It is usually of very short duration, terminating in from three to ten days, although occasionally it is slower, several cases in the present fever having lasted over twenty days; but this was owing to the fact of the ship's not remaining a sufficiently long time in the pestilential atmosphere of the African coast, to induce the extremely malignant form it frequently assumes.

The number of the officers and crew of the Preble, at the time of her leaving Porto Praya for Bissao, was about 170; nearly 100 of them were attacked by the fever (in this number the relapses, and the cases of intermittent fever, are not counted). The number of deaths was 14; being a proportion of about one in every seven.*

During the remainder of the cruise those who had suffered from the fever, were very subject to diseases of the stomach and bowels; intermittent fevers; debility, &c.

The colored portion of the crew were even more liable to attacks of this fever than the white, two only having escaped out of the eleven on board; no case proved fatal among these, although in nearly every instance the attack was severe. Not a single boy escaped, they having it, with one exception, in a very malignant form. Of the deaths, five were of the age of 21, or under. I do not, at this time, recollect the number of boys on board, but I think the number was less than twenty.

New York, Dec. 18th, 1845.

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* Two deaths occurred besides the number mentioned; one by a fall from his hammock, about the fourth day of his illness, by which his scull was fractured; the other perished by an attack of apoplexy, three weeks after convalescence, undoubtedly caused by hard drinking.

ABSTRACT OF CASES.

CASE I.—*Nov. 19th.* J. C., Corporal Marines, was seized last night with a smart chill, severe pain in the head, loins and extremities; pulse frequent and feeble; skin hot and bathed with sweat; tongue furred and moist; great thirst, bowels constipated. ℞. Calomel. grs. x: ext. colocynth c. gr. vj., m. ft. pil. ij. s.

20th. Rather better, less pain; skin moist and cooler; great restlessness; thirst very great; tongue moist and covered with thick fur of a yellowish cast; face pale and shrunken; eyes red and watery. Cathartic produced one tolerably free evacuation, dark and offensive. ℞. Mass. hydr. gr. ij.; pulv. rhei. gr. ij., pulv. ipecac., gr. j., m. ft. pil. qq. quart. hor. sumend. Solution of potass bitart. for drink.

21st. Passed a very restless night; had high fever; complains of severe pains in the gastrocnemii muscles, and also in the head and lumbar region. Pulse 96, quick and feeble; great depression of mind; tongue red at the tip and edges, and covered with white fur in the centre, moist; skin hot and covered with a clammy sweat; strength much diminished; bowels have been freely opened. Continue pills. ℞. Ammon. citrat. ℥ss. qq. 2da hora. Same drink.

22d. Better; has an intermission of fever; skin natural; tongue nearly clean; pulse 84 and feeble; ordered with the pills quin. sulph. gr. j. Arrow-root diet.

22d. Improving; no pain; tongue clean; skin natural; pulse very feeble and frequent; great debility. Allow weak port wine and water. ℞. Mist. quin. sulph. ℥ss. qq. 2da hora. Arrow-root.

24th. Improving; continue treatment.

26th. Convalescent.

CASE II.—*Nov. 20th.* T. F. was seized last night with chills, pain in the head and back. This morning complains of severe pain in head and loins; great restlessness; hot skin; slightly moist; tongue covered with a yellowish fur, and moist; breath offensive; eyes red and watery; pulse quick and feeble; complains of great debility; disinclination to move; bowels constipated. ℞. Hyd. prot. chl. gr. x., ext. col. comp. gr. v., M.

21st. No better; passed a most uncomfortable night; bowels moved by cathartic; stools dark green and offensive; strength failing fast; pulse 100, tolerably full but very compressible; thirst great; other symptoms as yesterday. ℞. Calomel. gr. ij., pulv. ipecac. gr. ss., M. ft. pulv. qq. 3 vel 4ta hora, sumd. sol. pot. Bitart. for drink.

8 *P.M.* Worse; has vomited several times; skin very hot and dry.

22d. Worse; had a very bad night, was extremely restless, with great heat of skin; complains very much of pain in the head and loins; tongue red at the edges; stomach very irritable; pulse rapid and feeble; skin hot and moist in spots; bowels free; stools dark and watery; applied mustard to epigastrium; cold applications to head. ℞. Sol. ammon. citrat. ℥j. a teaspoonful, qq. ½ hora.

23d. Last evening pulse became very feeble; skin cold and clammy; gave port wine and water freely, with excellent effect; the stomach became less irritable; had a tolerably free stool this morning; pulse 90 and fuller; tongue cleaning, showing a fiery red surface; skin feels softer and more natural. Continue port wine and water; mist. quinin. qq. 2da hora; allow a little thin arrow-root if he wishes.

24th. Was very comfortable yesterday; but at night complained much of pain in head and extremities, and became very restless; this morning, tongue cleaning and less red; skin moist and cool; pulse 94 and feeble; has had no movement of bowels. ℞. Mist. magnes. calc. et rhei ℥ss., qq. hora. Continue treatment.

25th. Better; took tr. hyoscyami gtt. lx. last night, which produced about four hours' refreshing sleep; bowels gently moved twice; tongue cleaning and less red; had two attacks of hemorrhage from the nose yesterday; pulse fuller and less frequent; skin natural and gently moist. Continue treatment.

26th. No material change since yesterday; took tr. hyoscyami gtt. lx. last evening; slept tolerably well; tongue nearly clean; pulse 84 and soft; skin natural; continue treatment. Arrow-root.

27th. Convalescent; continue quinine. Porter.

Case III.—*Nov. 20th.* J. E., Marine, was taken with chills, &c., last night on post: symptoms very similar to those of the case above mentioned. ℞. Calomel. gr. x., pulv. rhei gr. xviij.

21st. No change in symptoms; skin hotter and drier than in either of the above cases; cathartic has operated freely; same treatment prescribed as in the last case. 8 P.M. delirious; head very hot; applied cloths wet with cold water to it.

22d. Worse; free from delirium; less pain in head; is very restless; skin hot and dry; pulse 110, quick and feeble. ℞. Calomel., carb. ammon., aa., gr. ij. qq. 3ta hora.

23d. Slightly better; less heat of skin; no pain in the head; less restless; slept some; bowels free; continue treatment.

24th. Very restless last night; stomach irritable; gave pil. opii, gr. ij.; had some sleep this morning; is more comfortable this morning; effervescing draught.

25th. Better; applied emp. epis. to epigastrium last evening which has allayed the irritability of the stomach; tongue clean; pulse 84, less quick; skin natural; bowels free. ℞. Calomel., quin. sulph., aa., gr. ij., qq. 2da hora. Arrow-root.

26th. No pain in the head or back; complains of pain in epigastrium; pulse 100, small; skin moist; natural temperature; thirst urgent; bowels free; restless and peevish; omit pills. ℞. Calomel. gr. ij. every 2 hours: emp. epispast. to epigastrium.

27th. Better; less fever; complains much of the blister on the epigastrium, which has relieved pain; skin natural; tongue cleaner; continue treatment.

28th. Improving; no fever this morning; pulse fuller and slower; tongue cleaning; continue treatment. Sago.

29th. Convalescent; continue treatment. Arrow-root.

Case IV.—*Nov. 21st.* H. H., Landsman, was taken during the night with fever similar to the above mentioned cases. ℞. Calomel. gr. x. to be followed by magnes. sulph. ℥j.

22d. Better; complains of pain in the region of the liver; not tender on pressure. ℞. Calomel. gr. x., pulv. Doveri gr. viij., M.

23d. Feels more comfortable; complains of great thirst; skin warm and moist; pulse full, about 90. ℞. Mass. hyd., sulph. quin., aa., gr. ij., qq. 2da hora. Arrow-root.

24*th*. Improving; says he has no pain; bowels free; skin natural and moist; tongue cleaning; continue treatment.

25*th*. Better; has had free hemorrhage from the nose yesterday; continue treatment. Rice diet.

26*th*. Not as well; skin hotter and drier; more pain in the head; restless; great thirst; omit pills. ℞. Calomel. et potass. nitrat. gr. iv. qq. 2da hora; apply wet cloths to head.

8 P.M. Is very delirious; constantly getting out of his hammock; head very hot; apply cloths dipped in alcohol and water.

27*th*. Is sleeping very quietly; skin moist and temperature natural; continue treatment.

28*th*. Improving; pulse 90, full and soft; no pain; skin natural; tongue cleaning. ℞. Quin. sulph., pulv. rhei, aa., gr. ij. qq. 2da hora.

29*th*. Convalescent.

Case V.—*Nov.* 23*d*. J. M. S., Midshipman, æt. 20, admitted. Complains of pain in head and back; pulse frequent, and full; skin natural and moist; tongue thickly coated with a yellowish fur. Had no chill preceding. ℞. Calomel. gr. x., ext. colocynth. c. gr. vj., M. ss.

24*th*. Had a very high fever last evening; head very painful; restless; skin hot and dry; pulse full and frequent, 110; sponged skin with alcohol and water; applied cloths wet with the same to the head. ℞. Calomel. ʒss., nit. potass. ʒj., tart. antim. gr. j., M. et div. in pulv. v. j. qq. 2da hora; applied sinapisms to feet; better this morning; skin moist and natural; continue treatment.

25*th*. Worse; very restless; slightly delirious through the night; headache violent; skin hot and dry; tongue moist, and covered with a thick whitish fur; pulse 120, quick and feeble; substituted pulv. ipecac. for the tart. ant. which nauseated.

This morning is inclined to coma; is roused with difficulty; answers incoherently; applied mustard to feet, emp. episp. to back of neck, and cups to temples; passed a stool in bed; continue powders.

8 P.M. No change for the better; eyes suffused, pupils contracted; face swollen and flushed; has a peculiar staring expression; makes no reply when spoken to; is very restless, constantly striving to get out of bed; has passed two stools involuntarily; takes neither drink nor medicine; applied blisters to ankles; pulse very rapid and feeble; skin dry and hot, especially about the head; keep cloths wet with alcohol and water constantly to the forehead.

26*th*. Slight improvement; answers questions, and can be aroused without difficulty; face less flushed; eyes more natural; skin dry, and but little warmer than usual; tongue cleaning about the tip; pulse 112, quick and feeble; stomach very irritable, rejects everything that is swallowed; blisters have not drawn; has passed a stool in the cot, color bright yellow; apply mustard to epigastrium; will take no medicine.

8 P.M. Has improved very much since morning; blisters have drawn freely; is perfectly rational; skin moist and of natural temperature; mustard has quieted stomach.

27*th*. Passed a comfortable night; slept soundly; is perfectly conscious; pain in the head very slight; tongue cleaning; skin natural; pulse 84, full and feeble; retains drink on his stomach; bowels open; stools healthy color; nothing ordered; lemonade is craved, allow it; a little thin arrow-root or sago.

28*th*. Improving; no pain; skin natural; tongue cleaning; pulse quick, soft and full (86); bowels free; craved food; little or no thirst; allow arrow-root or sugar.

29*th*. Not so well; eat some chicken soup without the knowledge of the medical officers; was delirious last night; tongue red, moist, and slightly coated with a white fur; skin natural, but rather dry; is somewhat fatuitous. ℞. Mass. hyd. gr. xij. ss.: effervescing draught.

30*th*. No material change; is more or less delirious; tongue as noted yesterday; skin rather hotter and drier than natural; says he is perfectly free from pain; answers questions very well; bowels free; continue treatment; apply emp. epis. to ankles.

Dec. 1*st*. Better; no delirium; tongue cleaning; pulse feeble (94); skin natural. ℞. Sol. sulph. quin. gr. ij. qq. 3ta hora; allow a little weak port wine and water.

2*d*. Quinine did not agree; omit it; was very delirious all night; stomach rejects everything; passes his stools in bed; apply emp. epis. to epigastrium; pulse frequent and fluttering; skin dry and harsh; tongue red, and moist, but not furred nor glazed; thin arrow-root with wine.

3*d*. Much worse; is evidently sinking; pulse very rapid and extremely feeble; very delirious; other symptoms as yesterday; brandy and water. ℞. Pulv. camph. gr. v., carb. ammon. gr. vj., M. qq. hora. At 4 P.M., died; not examined.

Case VI.—*Nov.* 24*th*. P. C., Seaman, has pain in head and loins; frequent small pulse and other symptoms of the prevalent fever. ℞. Calomel. gr. xij., pulv. jalapæ gr. xv., M. ss.

25*th*. As yesterday, excepting that he has less pain in the head and back. ℞. Calomel. et potass. nitrat. aa., gr. iij. qq. 2da hora sum.

26*th*. Had a remission of fever last evening, but this morning it has returned; skin very hot and dry; pulse rapid; headache severe; continue powders; sponge the skin with alcohol and water.

27*th*. Better; tongue cleaning; skin warm and moist; pulse 80, full and soft; no pain. ℞ Sulph. quin., pulv. rhei, aa., gr. ij. qq. 2da hora, during remission; arrow-root.

28*th*. Improving; tongue nearly clean; pulse 82, full and soft. Continue powders—sago or arrow-root.

29*th*. Continues to improve. Continue treatment.

30*th*. Not as well; stomach rather irritable; bowels loose; tongue covered with a white fur; red at the tip and edges; discontinue treatment. Apply emp. epispast. to epigastrium.

Dec. 1*st*. No change in symptoms. ℞. Quin. sulph., pulv. rhei, aa., gr. ij. if a remission occurs.

2*d*. Worse; had high febrile symptoms last evening, with low muttering delirium and propensity to get out of his cot; pulse extremely feeble and fluttering; this morning, skin cool and clammy; port wine and water; arrow-root, quinine.

3*d*. Continues to grow worse, is sinking; brandy and water.

4*th*. Slightly improved; pulse more perceptible; skin cool and clammy; tongue nearly clean; continue brandy and water.

5*th*. Pulse 80, very feeble; skin dry and husky; tongue has a little brownish fur at the back part; has no pain; is perfectly rational, countenance sunken; has some appetite; bowels regular, one stool; is exceedingly debilitated; allowed him some arrow-root with wine; slept well last night; continue brandy and water freely.

6*th*. Convalescent; beef tea; omit brandy, give wine and water.

Case VII.—*Nov*. 25*th*. M. F., Supernumerary, admitted; complains of pain in head, loins and extremities; skin hot and moist; tongue covered with a whitish slime; pulse 106, quick and small; bowels not constipated; great restlessness; thirst urgent. ℞. Hydrarg. biniod. gr. iij. morphiæ sulph. gr. ¼, quin. sulph. gr. vj., in pulv. no. iv. div.; one every three hours.

26*th*. No material change since yesterday; medicine prescribed yesterday did not agree; omit it. ℞. Calomel. et potassæ nitrat., aa., gr. iij. qq. 2da hora.

27*th*. Has a good deal of excitement; headache not very severe; complains chiefly of pain in the loins and lower extremities; skin very hot and dry; tongue furred and dry; pulse rapid and feeble; bowels not open. ℞. Mass. hydrarg. gr. ij., pulv. rhei gr. iij., pulv. ipecac. gr. j. M. ft. pil. qq. 2da hora s.

28*th*. Better; headache very slight; tongue beginning to clean; surface quite red; pulse fuller and slower; skin warm and moist; bowels open. Continue treatment.

30*th*. No material change; refuses to take medicine; tongue covered with a white fur, and red at the tip and edges. Continue treatment.

Dec. 1*st*. Much improved; has no fever. ℞ Quin. sulph., pulv. rhei, aa., gr. ij. qq. 2da hora s.

3*d*. Improving. Continue treatment.

4*th*. Has more febrile excitement; pulse quick, rapid, and feeble; tongue red, and furred in the centre; great thirst; is disposed to be comatose; bowels loose; stools dark, thin, and very offensive; blister to epigastrium. Continue efferves. draught.

5*th*. Symptoms as yesterday. Apply blister to the back of the neck; will not take any medicine.

6*th*. Worse; very restless and uneasy; skin dry and harsh, and quite yellow; pulse 120, and feeble; says he has no pain; bowels free; tongue moist, and covered with a thick yellowish fur; moans a good deal; will take no medicine. Allow wine and water; arrow-root if he will take it.

7*th*. No change; pulse frequent, 120, and very feeble; considerable heat of skin; will not take any medicine. Wine and water.

8*th*. No change. Continue wine and water.

9*th*. Gradually failing; pupils much dilated; comatose; skin cool, dry, and harsh; tongue covered with a dark brown fur, and red at tip and edges: pulse 130, quick and feeble. Apply blisters to ankles. Continue wine and water.

10*th*. Profound stupor; will take nothing. Mustard to feet.

11*th*. Died this morning at 1 o'clock.

Autopsy, *twelve hours after death.—Cranium.*—Dura mater natural; pia mater and arachnoid much injected, so that it presented a complete meshwork of minute vessels when detached from the convolutions. The substance of the brain was much engorged, presenting points or dots when cut into. The ventricles contained nearly an ounce of fluid. The choroid plexus much injected. The whole brain was of a natural consistence.

Thorax.—Lungs healthy in appearance; when cut into and pressed, gave out bloody serum in considerable quantity; considerable effusion in

the pleura on both sides. The pericardium contained about six ounces of serum.

Abdomen.—Stomach contained about six ounces of bilious colored fluid; seven lumbricoides, measuring from four to six inches in length, were found in it. The mucous coat at the cardiac extremity very much injected; little or no softening of it at any point, but corrugated in the form of a network, and deeply tinged of a yellow color, much thickened throughout, and adhering with considerable tenacity to the muscular coat. Liver very much enlarged and softened, yielding easily to pressure. Gall-bladder very much distended, containing nearly two and a half ounces of intensely black bile. Spleen enlarged, dark colored and much softened. Small intestines—duodenum much injected, presenting numerous bloody points or dots, from one to three lines in diameter. Some lumbricoides were found in the ileum. Mucous membrane healthy.

The blood throughout appeared to be extremely tenuous, and no coagulation appeared to exist in any part that was examined. In the venæ cavæ and the right ventricles of the heart it resembled, in color and consistence, claret wine diluted with water.

Case VIII.—*Nov. 25th.* G. S., Boatswain's Mate, admitted; complains of severe pains in the loins; slight pain in the head; pulse 98, full and soft; great thirst; tongue slightly furred; skin natural. ℞. Calomel. gr. x., pulv. jalapæ gr. xv. M. ss.

26*th.* Has considerable febrile excitement this morning; complains much of his head; skin very hot and dry; breath very offensive; tongue much furred. ℞. Calomel., potass. nitrat. gr. iij. qq. 2da hora. Sponge skin with alcohol and water. 8 P.M. has been violently purged by the powders; omit them. ℞. Pulv. Doveri gr. vj. ss.

27*th.* Had a very uncomfortable night; symptoms as yesterday; omit powders. Bathe feet in warm water, and apply mustard. Saline draught.

28*th.* Improving. Continue treatment. Sago.

29*th.* Improving; slight tenderness over the epigastrium. Continue treatment.

30*th.* Convalescent.

Case IX.—*Nov. 25th.* T. W., Seaman, admitted; has been sick for the last three days, with pain in the head, &c. Symptoms at present—face flushed and swollen; eyes red and watery; great headache; skin hot and dry; pulse 110, soft and full; bowels constipated; tongue thickly coated with a yellowish fur, and moist. ℞. Calomel. gr. xij., pulv. jalap. ℥j. M. ss.

26*th.* Has a remission of fever. ℞. Mist. quin. qq. hora. Sago.

27*th.* Fever returned last evening, and continued all night; is very slight this morning; omit quinine. ℞. Mass. hydrarg. gr. iij., pulv. rhei gr. iij., pulv. ipecac. gr. ss. every third hour. Arrow-root.

28*th.* Perfectly free from febrile symptoms; says "he is entirely well, except very weak." ℞. Quin. sulph., pulv. rhei, aa., gr. ij. qq. 3da hora sumend. Arrow-root.

29*th.* Better; had a slight attack of fever last night; at present has a perfect remission. Continue treatment and diet.

30*th.* As yesterday. Continue treatment and diet.

Dec. 1st. Convalescent.

Case X.—*Nov.* 24*th.* C. D., Seaman, admitted; symptoms the same as the above mentioned cases. ℞. Calomel. gr. xij., pulv. jalap. ʒj. M. ss.

26*th.* Has high febrile symptoms; pulse 96, feeble and quick; skin hot and moist; tongue furred and moist; bowels freely opened by cathartic. ℞. Calomel., pulv. potass. nitrat., aa., gr. iij. qq. 2da hora s.

26*th.* Slightly improved; has still considerable febrile excitement. Continue treatment. 8 P.M., stomach exceedingly irritable. Apply mustard to epigastrium.

27*th.* Not as well; skin hot and dry; severe pain in back and legs; bowels purged too often, and stomach irritable; pulse 110, quick and feeble; tongue much furred; great thirst; very despondent. Apply emp. episp. to epigastrium. Chalk mixture if diarrhœa continues.

28*th.* Rather better; less pain; skin hot and moist; pulse 100, less quick; stomach less irritable; otherwise the same. ℞. Saline draughts qq. 2da hora s.

29*th.* As yesterday. Continue treatment. Blister to epigastrium.

30*th.* Gradually growing worse; bowels irritable; stools very frequent and watery; color yellow; stomach rejects everything swallowed; skin hot and dry; tenderness on pressure on the epigastrium; no pain in head or back; tongue very red and free from fur. Apply cups to epigastrium, and after blister; no medicine.

Dec. 1*st.* Better; took ¼ gr. morphiæ sulph. last evening; bowels in better condition; stools less frequent; retains liquids; pulse frequent and feeble; tongue less red, and rather dry in the middle. Flaxseed tea.

2*d.* No material change since yesterday, except tongue is moister and less red; took port wine and water last night, which has agreed very well. Continue treatment.

3*d.* Slightly better; tongue continues moist and less red; bowels more regular; pulse stronger. Continue wine and water.

4*th.* Much improved; has a slight vesicular eruption about the mouth; tongue natural color, and free from fur; pulse 80, full and soft; skin natural; craves food; little or no thirst; no pain; allow weak wine and water. ℞. Quinine sol. ℥ss. qq. 2da hora s. Arrow-root made with milk.

5*th.* Convalescent. Continue quinine, and wine and water; chicken soup.

Case XI.—*Nov.* 26*th.* F. E., Seaman, admitted with the usual symptoms. ℞. Pulv. ipecac. ʒss. ss.

27*th.* Emetic operated once; has severe headache; pain in the back; hot, dry skin; pulse full and rapid; tongue dry, and covered with a yellowish fur. ℞. Calomel. gr. xij., pulv. rhei gr. xv. M. ss.

28*th.* No material change since yesterday. Continue treatment with saline draughts.

29*th.* Better; no pain in head; skin moist and warm; tongue as yesterday; pulse frequent, feeble, and quick; bowels free. ℞. Effervescing draughts.

30*th.* No material change. Continue treatment.

Dec. 1*st.* Better. ℞. Quin. sulphat., pulv. rhei, aa., gr. ij. qq. 2da hora s.

2*d.* Better. Continue treatment.

3*d*. Improving slowly. Continue treatment. Arrow-root.
4*th*. Improving slowly. Effervescing draughts. Arrow-root.
6*th*. Convalescent.

Case XII.—*Nov.* 26*th*. C. M., Seaman, admitted with the usual symptoms. ℞. Calomel. gr. xij., ext. colocynth. c. gr. vj. M. ss.

27*th*. Has considerable pain in the head; hot dry skin; frequent quick pulse, &c. ℞. Mass. hydrarg. gr. iij., pulv. rhei gr. ij., pulv. ipecac. gr. ss. M. qq. 3ta hora sum.

28*th*. Stomach irritable; headache considerable; skin hot and slightly moist; pulse 110, quick and feeble; bowels freely purged. Apply mustard to epigastrium; no medicine.

29*th*. Better; irritability of the stomach gone; pulse 90, fuller and less quick; skin warm and moist; tongue cleaned, but very red; less purging; complains of pain in loins chiefly; has but little headache. Effervescing draughts.

30*th*. Better; tongue less red; bowels in better condition. Continue treatment. Sago.

Dec. 1*st*. As yesterday; some tenderness over epigastrium on pressure. Apply cups. Continue effervescing draughts.

2*d*. Better. Continue treatment.

6*th*. Convalescent.

Case XIII.—*Nov.* 27*th*. S. A. Boy, admitted with usual symptoms. ℞. Hydrarg. prot. chlorid. gr. x., ext. colocynth c. gr. vj. M., ss.

28*th*. No material change; cathartic only operated once, and but slightly; repeat cathartic.

29*th*. As yesterday; bowels slightly opened. ℞. Calomel. gr. v. qq. 2da hora, until it produces free evacuations.

30*th*. Improving; continue treatment.

Dec. 1*st*. No material change since yesterday; continue treatment.

2*d*. No change; continue treatment; effervescing draughts.

3*d*. Says he feels better; skin hot and dry; tongue cleaning; pulse frequent and feeble; continue treatment.

4*th*. As yesterday; skin hot and dry; tongue clean at the tip and red at the edges, furred in the centre, and inclined to be dry; bowels loose; pulse frequent and feeble; apply cups to epigastrium; continue efferv. draughts; sponge arms and neck with cold water.

5*th*. No material change; pulse 100, full and soft; has no pain; is not delirious nor comatose; skin cool, dry, and husky; slept tolerably well; bowels not as loose; tongue less red, clean, and moist; less thirsty; continue treatment.

6*th*. Rather worse; pulse 120, and feeble; skin cool and moist, tongue red and furred in centre; says he has no pain; quite rational; bowels free; allow wine and water.

7*th*. No change; appears to be gradually failing; is very restless: ℞. Camphor. gr. iij., quin. sulph. gr. ij., qq. 2da hora; wine and water, weak beef tea.

8*th*. Stupor; pupils dilated; surface cold; pulse 130, and very feeble; is sinking fast; apply sinapisms to ankles, thighs, and epigastrium. ℞. Quiniæ gr. ij., carb. ammon., camphor., aa., gr. v., qq. hora.

Died during the night; body not examined.

Case XIV.—*Nov. 26th.* M. G., Seaman, admitted; symptoms the same as in the other cases. ℞. Pulv. ipecac. ʒss. ss.

27th. Emetic relieved symptoms; bowels not operated upon; has no fever this morning. ℞. Hydrarg. prot. chlor. gr. xij. ss.

28th. Has no febrile symptoms; says he passed a most uncomfortable night. ℞. Mist. quin. sulph. ℥ss, qq. 2da hora; sago.

29th. Improving; continue treatment and diet.

30th. Convalescent.

Case XV.—*Nov 27th.* T. W. F., Commander, admitted; has all the symptoms of the prevailing epidemic. ℞. Mass. hydrarg. gr. x., followed by magnes. sulphat. ℥i.

28th. Doing well; complains of pain in forehead; skin warm and moist; pulse 112, quick, and frequent; little thirst; slept none during the night; stomach disposed to be irritable; bowels free; no medicine; toast water for drink.

29th. Slept well; feels much better; skin moist; slight headache. ℞. Quin. sulph. et rhei, aa., gr. ij., qq. 2da hora.

30th. Was very delirious last night, in consequence of too much excitement by visitors; passed a very restless, unquiet night; is better this morning; has no fever. ℞. Quin. sulph. (in sol.) gr. v., qq. 2da hora.

Dec. 1st. Improving; passed a quiet night; continue treatment.

2d. Worse; was very delirious all last night, and could not be kept in bed; took brandy and water when the attendant was absent from the cabin; pulse calm and natural; tongue clean; skin moist; bowels regular; refuses to take medicine.

3d. Is sleeping soundly this morning; did not disturb him; skin natural; pulse fuller and slower.

4th. Convalescent. ℞. Mist. quin. sulph. gr. ij., qq. 3ta hora; weak chicken soup.

Case XVI.—*Nov. 28th.* A. T., Seaman, admitted. Chills followed by fever; headache; pain in the back and limbs; tongue furred and moist; great thirst; restlessness. ℞. Calomel. gr. xij., ext. col. comp. gr. vj., M. ss.

29th. No change; cathartic did not operate; repeat it.

30th. Rather better; effervescing draughts.

Dec. 1st. As yesterday; continue treatment.

2d. Rather better; continue treatment.

3d. Better; fever very light; continue as yesterday.

4th. Had considerable fever last night; complains of very severe pains in back; applied cups, which afforded great relief; slept well during the latter part of the night; feels better this morning.

5th. Slight pain in back of head; tongue cleaner; skin cool, yellowish, and moist; pulse quick and feeble (96); bowels open; some tenderness on pressure over epigastrium; apply blister; continue effervescing draughts every 2 hours; sago.

6th. Slightly better; complains of griping pains in the abdomen; pulse 88, and feeble; skin moist and cool; tongue cleaning; bowels costive. ℞. Magnes. calc., pulv. rhei, aa., ʒj.; rice and molasses.

7th. Rather better; two stools; otherwise no change. ℞. Sulph. quin., pulv. rhei, aa., gr. ij., qq. 3ta hora s.; wine and water.

8th. No change; continue treatment.

9*th*. Better; had cold clammy skin, and was almost pulseless last night; pupils much dilated, and inclined to coma; applied sinapisms to feet; gave brandy and water liberally; has no coma this morning; pulse fuller; skin warm and dry. ℞. Calomel. gr. j., sulph. quin. gr. ij., qq. 2a hora; wine and water.

10*th*. Better; no fever. ℞. Mass. hydrarg. gr. iij., quininæ gr. ij., m., qq. 2da hora s.; small quantity of beef tea; rice and milk.

11*th*. Convalescent.

Case XVII.—*Nov.* 29*th*. W. K., Seaman, admitted with the usual symptoms. ℞. Pulv. ipecac. ℈j., antim. tart. gr. ij., M.

30*th*. Much better; bowels constipated. ℞. Calomel., colocynth ext., aa., gr. vj., ss.

Dec. 1*st*. Worse; has vomited a good deal; tongue red; tenderness on pressure over epigastrium; apply cups; effervescing draughts.

2*d*. No better; very delirious, constantly getting out of his cot; no vomiting; tongue very red; blister to epigastrium; continue effervescing draughts.

3*d*. No material change; blister has not drawn; re-apply it; continue effervescing draughts.

4*th*. Very delirious and turbulent; constantly striving to get out of his cot; pulse very rapid and feeble; skin cool and slightly moist; tongue less red, and beginning to clean; apply blister to back of neck; will not take any medicine.

5*th*. Improving; no fever; passed a quiet night; slept soundly; "feels well;" skin moist; pulse 76, full, and soft; tongue nearly clean, and natural color; moist; allow wine and water. ℞. Quin. sulph. (in sol.) gr. ij., qq. 2da hora; beef tea.

6*th*. Convalescent. Discharged, 22d January, 1845.

Case XVIII.—*Nov.* 29*th*. T. M., Seaman, admitted with the usual symptoms. ℞. Calomel. gr. xij., ext. col. comp. gr. vj., m., ss.

30*th*. Much better; effervescing draughts.

Dec. 1*st*. Improving; no pain; continue treatment.

2*d*. Fever slight; complains of tenderness over epigastrium; bowels free; thirst great; apply cups to epigastrium; continue treatment.

3*d*. Skin cool and moist; pulse quick and small (110); tongue moist, pale, and flabby; complains of nausea; says "he is free from pain;" continue effervescing draughts.

4*th*. Feels very much exhausted, with tendency to faintness in the erect position; was much fatigued by being brought ashore yesterday; continue as yesterday.

5*th*. Delirious; gets out of bed very often; very noisy and restless; says he has no pain; tongue covered with a very dark fur; diarrhœa; apply blister to epigastrium. ℞. Mist. cret. ℥ss after each stool; effervescing draughts.

6*th*. Diarrhœa has stopped; no other change; continue eff. draughts.

7*th*. Moans a good deal; has no delirium; slept tolerably well; pulse 88, and fuller; tongue cleaning, at tip and edges very red; bowels in good order; only one stool since yesterday; skin natural, and slight moisture all over the body; less thirst; continue treatment.

8*th*. Became worse last evening; pulse 110, and very feeble; skin cold and clammy; stupor; will not put out his tongue; apply sinapisms to feet and epigastrium; wine and water.

9*th*. Quite revived; skin warm and moist; answers questions readily; is rather peevish and fretful; pulse 110, rather fuller; pupils of eyes dilated; bowels moderately open; tongue dry, and covered with a dark brown fur; says he "feels perfectly well;" considerable thirst; omit wine. ℞. Mass. hydrarg. gr. v., pulv. ipecac. gr. ½, m., qq. 2da hora.

10*th*. Is evidently failing; pulse 120, very feeble; slight subsultus tendinum; tongue as yesterday, but moist; skin cold; thirst intense; great restlessness; threw himself several times out of his cot last night; muttering delirium; brandy and water. ℞. Ammon. carb. gr. v., camphor. gr. vj., m., qq. hora sum.; blisters to thighs, and sinapisms to feet.

Died in the evening at 7 o'clock.

Case XIX.—*Nov*. 28*th*. J. D., Seaman, admitted with the usual symptoms. ℞. Calomel. gr. xij., ext. colocynth c. gr. vj., m., ss.

29*th*. No material change; has high febrile symptoms; cathartic operated freely; effervescing draughts.

30*th*. Worse; cannot be roused; skin hot and dry; pulse rapid and feeble; eyes suffused; apply cups to temples, and blisters to ankles; no medicine.

Dec. 1*st*. Rather better; answers when spoken to; otherwise the same as yesterday; dress blisters.

2*d*. Rather better; effervescing draughts; arrow-root.

3*d*. Better; perfectly rational; continue treatment.

4*th*. No material change; complains of dull pain in the head; in attempting to get out of his cot yesterday fainted and cut his head; continue treatment; apply cold water to head.

5*th*. Pulse rapid and feeble; skin cool, clammy, and slightly yellowish; tongue nearly clean; bowels free; perfectly rational; no pain; wine and water; sol. quin. sulph. gr. ij., qq. 2da hora s.

6*th*. Better: pulse 80, full, and soft; tongue clean; skin natural; bowels regular; sleeps well; has a good appetite. ℞. Sol. quin. sulph. gr. iij., qq. 2da hora; porter and water; beef tea.

7*th*. Convalescent.

Case XX.—*Dec*. 1*st*. T. W., Seaman, admitted with the usual symptoms. ℞. Calomel. gr. xij., ext. colocynth comp. gr. vj., m., ss.

2*d*. Better; effervescing draughts.

3*d*. Better; continue treatment; sago.

4*th*. Improving; continue treatment and diet.

5*th*. Slight pain in head; some tenderness over epigastrium; vomiting; skin cool and moist; pulse 96, and feeble; tongue red, and covered with a whitish fur; cups to epigastrium; efferves. mixture.

6*th*. Applied blister to epigastrium last night; is better; no vomiting; no pain; slept none; tongue moist, red at the tip, with yellow fur in centre; bowels open; pulse frequent and feeble; efferves. mixture.

7*th*. No material change; skin cold and clammy. ℞. Mass. hydrarg. gr. v., qq. 2da hora; porter and water.

8*th*. No change; pulse very rapid, and scarcely perceptible; is sinking very fast. ℞. Ammon. carb., camphor., aa., gr. v., opii gr. ¼, m., qq. 2da hora sum.; wine and water; sinapisms to thighs and ankles.

9*th*. Sinking fast; was entirely pulseless last night; ordered wine and water freely. ℞. Ammon. carb., camphoræ, aa., gr. v., qq. hora s.; has slightly revived this morning; pulse 130, very feeble, can scarcely

feel it; skin moderately warm; some moisture about the head; dry on the rest of the body; says he "feels very well;" tongue brown and dry; says he has no thirst; sordes on teeth; voice very feeble; is very restless; pupils dilated; apply blisters to ankles; continue medicine prescribed last night.

10*th*. Died this morning; body not examined.

[*To be continued.*]

ART. III.—*Observations on Endemic Peritonitis, as it appeared at Fort Wilkins, Copper Harbor, in the winter of* 1844 *and* 1845, *with Topographical Remarks on the country of Lake Superior.* By C. E. ISAACS, M.D., U. S. Army.

THE wild region bordering upon Lake Superior has been as yet but imperfectly explored, by a few individuals, while to most persons it still remains entirely unknown. In former times, the numerous and warlike bands of savages threw greater dangers in the way of its exploration; and even at the present day, though this difficulty has long since ceased to exist, the natural obstacles and the hardships to be endured are such as to discourage all, but the most hardy and enterprising. The sudden and violent squalls and storms that sweep the surface of the lake are hazardous even to the experienced *voyageur;* while its bold, rocky, and often inaccessible shores seldom afford a place of refuge from their fury. The examination of the interior is attended with excessive fatigue and exposure to the inclemency of the weather; and in the summer months, the insects (the black flies and musquitoes) are extremely troublesome. The rivers are small, short, and obstructed frequently by difficult and dangerous rapids; the dense evergreen growth sometimes forms almost impenetrable thickets; fallen timber is found crossed and interlaced in every direction; very much of the country is broken, rocky and mountainous, with cliffs, precipices, and ravines of great height and depth, almost or quite impassable; and provisions must be packed and carried to great distances, as game is very scarce and not to be depended on.

Lake Superior may with propriety be compared to a vast deep and rocky basin, the edge in many places bordered by enormous precipitous trap, conglomerate and other volcanic rocks, abounding in agates, cornelians, &c., and intersected by veins of metallic copper and its ores running north and south, inclining west about fifteen degrees. There is probably no region in the world in which copper has been found so generally diffused. It is seen on nearly the whole extent of the shores of the lake, on the north and south, on almost all the islands, while it extends to an unknown distance to the south, west and north. At Copper Harbor two veins of black oxide of copper have been discovered in conglomerate rocks, to the extent of three hundred yards, varying in width from ten inches to two feet, and yielding, from the best specimens, upwards of 70 per cent. of pure copper. One of these veins is in active operation. A very rich vein of silver mixed with copper is worked at Eagle River, where shafts have been sunk to the depth of 70 feet, and the ore is equally good with that at the surface. The carbonate, yielding

from 20 to 30 per cent., has been found at Copper Harbor; and discoveries to great extent may now be anticipated, as adventurers are flocking in vast numbers to the country. On landing the troops appointed to occupy the military station, in May, 1844, there were not more than a dozen persons living within as many miles, and those were explorers. A recent account gives one thousand visitors during the present season. The immense wealth of the mines will undoubtedly induce multitudes to locate in this region.

As above stated, the region of Lake Superior is almost entirely uninhabited. The American Fur Company has four trading posts, at the Sault St. Marie, at the Anse Bay, at Fond du Lac, and at La Pointe; with these exceptions there are only a few scattered individuals, and some few families along the whole extent of the southern coast.

Fort Wilkins is situated in latitude about 47° 30′ north, and in longitude 11° 30′ west from Washington. It is ten miles from Keweena Point, which is the extremity of a neck of land projecting sixty miles into near the centre of Lake Superior, and varying in width from two to forty miles. This peninsula is very broken, irregular, rocky and mountainous. The rocks are trap and conglomerate. The country is covered with a dense evergreen growth of fir, pine and spruce, with white birch and a few oaks and maple. The soil is *poor, barren, stony;* in the vicinity of the fort remarkably so.

Copper Harbor is two and a half miles long, affording a good anchorage. Opposite the entrance of the harbor, and near the landing, is a small lake; between this lake and the harbor, on a narrow neck of land is the fort, twenty feet above the level of Copper Harbor. It is built upon conglomerate rock, which has been blasted away, in order to locate the buildings. The quarters and hospital are ample for two companies, and enclosed with picket work. The water of Lake Superior is excellent, and is generally used; that of the small lake on which the fort fronts is dark colored, unpleasant to the taste, and appears to hold much vegetable matter in solution; it has been sounded to the depth of 60 or 70 feet, and has an outlet that runs by the side of the fort into the harbor. Last summer, 1844, the weather was uncommonly fine, clear, moderately warm, and so continued till the end of September. The winter was mild; the thermometer, never below zero, was only three times at that point; the mean temperature for the winter was 20° above zero. The snow was from three to four feet on a level. I am informed, by those who have resided in the country, that the winters are generally mild; that the last was not unusually so. This is well contrasted with the cold at Sault St. Marie, 200 miles below, in lower latitude, where the winters are always severe, and where the mercury frequently falls 20 or 30 degrees below zero, and has been known to freeze. The insular position of Fort Wilkins probably explains the difference of the temperature. The weather, at the time the disease about to be noticed commenced, was milder than it had previously been, and continued so for a short time. During the winter there was a sufficient supply of all the necessaries of life. Potatoes, pickles, and sour kraut, were issued to the men. There was not the slightest appearance of scorbutus.

The first cases of the disease about to be described occurred on the 28th and 29th December, 1844. They were soon followed by others. Although only thirteen cases were *officially* reported among the soldiers, many of the command were affected with premonitory symptoms; such

as nausea, weight and oppression at the epigastrium; sometimes griping, burning pain, diarrhœa, and occasionally bloody discharges. Again, there were pricking, tearing, lancinating pains in the abdomen, with tenderness on pressure. Yet many of these cases were so checked, by promptly resorting to remedies, that, not running out their course, they were not reported; nor were some severe cases in the families of officers reported on sick list. One case, that of a soldier, terminated fatally—it will be given in detail. The disease was marked by great severity of symptoms, by their proneness to recur, and by unusual obstinacy and resistance to the action of remedies. The plan most effectual to arrest premonitory symptoms was, abstinence from all food, counter-irritation, sinapisms, and hot applications to the abdomen—small doses of mass. ex hydrarg. c. opio, followed by cups, pediluvia and enemata. If the disease did not *rapidly* yield, copious bleeding followed by cupping, calomel and opium, in doses to act gently on the liver and intestinal canal, and to relieve pain, were the appropriate means. I found it necessary in most cases to repeat bleeding and cupping three or four times. In the latter stages, blisters were used. In the first two cases only did I think it necessary to touch the mouth with mercury, and it is questionable whether it was of any service. The disease in its last stages had a strong tendency to pass into dysentery.

From the symptoms and aspects of all the cases carefully considered, and from the post-mortem developments in the one fatal case, the disease seems to have been an *obstinate* and *intense* PERITONITIS; the inflammation in the latter stages involving the mucous coat of the stomach to some extent, of the small intestines, but particularly that of the colon.

The *cause* of this disease is entirely unknown. It was at first attributed to the provisions. As, however, they were of good quality, no changes in them being discoverable, and as the troops have continued to subsist on the same supply ever since, without consequent disease, the cause cannot with any probability be referred to the diet of the troops. By some the water of the small lake was supposed to be the cause; but several persons drank from it during the whole of the past summer, fall, and winter, without any bad effect. By many it is used at the present time without detriment to health. During the prevalence of the disease, the weather was somewhat milder than it had previously been, and hence atmospheric vicissitude may have had influence in causation. Endemic atmospheric agency is probable, as a similar form of disease, attended with the same symptoms, prevailed at La Pointe, 180 miles west of Copper Harbor, four years ago, destroying about thirty of the inhabitants. This was also in the winter. I regret that it has not been in my power to obtain more precise information as to that endemic.

The symptoms and treatment of the disease are best illustrated by the detail of two cases—the one terminating favorably, the other fatally.

CASE.—D. C., Hospital Steward, age 30;—nervo-sanguine temperament; for some years past subject to attacks of dyspepsia, reported sick 28th Dec., 1844. Complained, for some time past, of want of appetite, flatulency, head-ache, pain in the abdomen,—has now nausea, erratic pains in the abdomen, and principally in the epigastric region; tongue white, and slightly furred; pulse small, frequent; some restlessness and debility. Took yesterday some blue mass and ol. ricin., which operated gently.

Ordered cups to the abdomen, to draw eight ounces of blood; a large warm poultice to abdomen. ℞. Pulv. opii grs. ij., mass. ex hydrarg. grs. x., to be taken at once.

10 P. M.—Has been quite relieved till now, when increased nausea, thirst, and some *tenderness* in the abdomen appeared. Ordered v. s. ad ʒxx.; poultice continued; pediluvium and warmth to the feet; enema emollient; and g. opii grs. iij.

29th.—After passing an easy day, the same symptoms of pain and tenderness on pressure, nausea, &c., returned at 9 P. M., though not so severely. Ordered v. s. to ʒxvi.; poultices; enema, and g. opii grs. iij., in a pill. These gave relief for a time, but the symptoms returning, I drew ʒviii. blood by cups; continued poultice; gave another enema, and repeated three grs. opium. This gave *perfect* relief, and he remained free from all pain, dressed, and amused himself with reading, and walking about the room, until noon of

31st, when he was *suddenly* seized with sharp, pricking, stinging pains throughout the abdomen, extending in a line *from the pubis to the centre of the sternum*, diffused tenderness of the abdomen, anxiety, general feeling of distress; straining, with desire to evacuate the bowels; a sensation as if distended with wind.

Ordered v. s. to ℥xx., and to syncope; five cups to abdomen drew ℥v. blood; poultices; enema as before; and g. op. grs. iij., mass. ex hydrarg. grs. x., followed by ol. ricini. These, with another enema, operated, and produced great relief. I then ordered g. op. grs. ij., calomel. grs. iij., every three hours.

At midnight, abdominal pain and tenderness returned; took 16 oz. blood, which produced syncope; cupping to 8 oz.; enema and poultice ut supra, and this with relief.

1st January, 1845; 8 A.M.—Took three powders of cal. and opium. Abdominal pains returned; took 8 oz. blood by cupping; fomenting poultices, after which applied a large blister to abdomen, which drew well.

9 P.M.—Pains returned; drew 6 oz. blood, by cupping around and near blister; calomel. grs. xx., ol. ricin. ℥i., opii grs. ij., and an enema. After this had operated, gave, on account of pain, opii grs. iv., camphor. grs. x., lupuli grs. x. Mouth now slightly sore from mercury, but the powders of calomel and opium were continued every four hours.

2d January, 8 P.M.—Abdominal pain returned violently. Bled to 20 oz., and syncope; opium, 6 grs., and an enema. Afterwards, cicutæ grs. xv., which gave entire relief till 11 P.M., when I gave 4 grs. opium, after which he rested well all night.

January 3d.—Easy till 8 A.M., when slight pain was relieved by an enema. Mouth very sore, and calomel discontinued. He remained free from all pain and uneasiness; no tenderness on pressure over the unblistered surface of the abdomen, nor on taking a full inspiration was any distress complained of; all symptoms had disappeared.

4 P.M.—The pains returned most severely; great tenderness on pressure of the abdomen; sharp, darting, stinging pains from *pubis to sternum, and even as high as the chin;* pains in the *thorax, testicles* and *penis;* great anxiety and restlessness; thirst; load at the pit of the stomach; oppression about the heart; pulse frequent, strong, hard, corded. Placed him as upright as possible; took 24 oz. blood from a large orifice, which induced complete fainting, on recovering from which

he was seized with convulsions, succeeded by faintness, prostration of strength, skin covered with cold sweat, extremely feeble pulse. This state continued one hour and a half, when nausea and stinging pains *in epigastrio* recurred. Ordered camphor and lupuline, each, grs. xv.; opium, grs. ij.; calomel, grs. ij.

8 P.M.—Peculiar stinging, pricking pains returned, with great abdominal tenderness; pulse 120, tense, and corded. The venesection had been carried to the extent of eleven pints, general and locally, and the great weakness, nay prostration of the patient, rendering farther bloodletting inadmissible. Ordered opium, grs. iv.

10 P.M.—Pain growing worse; *dry* cups were applied to every accessible portion of the abdomen and chest, followed by sinapisms to the parts, with best effect.

Midnight.—Pains returned; drew ℥4 blood by cups; this gave great relief.

January 4th, 7 A.M.—Pains returned; reapplied dry cups over abdomen and chest, where there was no blistered surface. Ordered opium, grs. vj., camphor, grs. x., which gave great relief. Finding soreness of gums to be nearly gone, ordered, ℞ camphor, ʒj., ipecac., grs. xii. calomel, grs. iv., et divid. in pulv. no. xii., one every hour.

8 P.M.—Slight pain returned. Removed by cupping dry with tumblers.

9 P.M.—Repeated dry cupping. Opium, grs. vi., camphor, x. grs., calomel, grs. j., m. take at once.

January 5th, 1 A.M.—Pain returned; relieved by the same remedies.

5 A.M.—Found that the pains and other symptoms had returned with intense severity, producing the most excruciating agony and distress I had ever witnessed; the sufferings of the patient cannot be expressed; he told me he had lost all hope, and entirely despaired of relief.

The remedies having so far failed to destroy the force of the disease, or to prevent the return of symptoms of such extreme agony, I determined to make a sudden and severe counter-irritation. I cut a piece of linen one fourth the size of the abdomen, dipped it in alcohol, and spread it evenly on that surface, and setting it on fire allowed it to burn out. This I repeated. This application produced immediate blistering and *intense* pain for a few moments, but removed entirely the *morbid pain.* I then gave opium, grs. vi., camphor, grs. x., and ordered ʒss. ungt. hyd. fort., to be rubbed into the groin on both sides.

6 P.M.—Pain returned. Applied again the blister of *burning alcohol* in two places, and gave opium, grs. iv., camphor, grs x. The patient was perfectly relieved, and in half an hour was asleep; he remained free from pain.

January 6, 8 A.M.—Much better; rested well since last report; pulse slightly corded and frequent; gums very sore.

2 P.M.—Two very offensive evacuations of dark brown feculent matter.

4 P.M.—Complained of pain in the bladder and penis; gave opium, grs. iv.; continued powders of cal., camph. and ipecac., every 6 hours; ordered enema of opium, ʒi., and starch.

Half-past 6 P. M.—Evacuation from the bowels. Half-past 7, gave opium, grs. viii., when he slept till 9 P.M.; then griping pains came on with straining, and ineffectual efforts to evacuate the bowels. Repeated enema; gave 10 grs. g. assafœtida.

January 7, 6 A.M.—Rested well since last report; has just had a stool, dark colored and offensive; continue powders.

9 A.M.—Mass. ex hyd., grs. ij., opium, grs. viij., on account of pain.

11 A.M.—Still in pain; ordered opium, grs. xii. Omit powders of cal., camph. and ipecac.

2 P.M.—Rubbed in ʒij. ungt. hyd. fort. Gave op. grs. vi., mass. ex hyd. gr. i. I now determined to keep the system *constantly* under the influence of opium and mercury, not waiting for recurrence of pain, and to use glysters of starch and laudanum to remove tenesmus, and to meet other symptoms with appropriate remedies.

4 P.M.—Repeated opium and blue mass. At 8 P.M., an evacuation from the bowels; opium and blue mass, as before.

11 P.M.—Rubbed in ungt. hyd. ʒiss. He had a dark brown discharge from the bowels, most acrid and offensive.

January 8, 7 A.M.—Had been up several times; during this day had several discharges; took 40 grains opium yesterday and last night.

January 9, 8, A.M.—Gave, during night, 30 grains of opium, with three glysters, ʒiss. tinct. op. in each; has singultus, and frequent calls to stool; enema of starch and laudanum, ʒiss.

Half-past 9.—Severe singultus; ordered camphor. grs. xv., assafœtid. grs. x.; continue opium and blue mass this day.

8 P.M.—Hiccup very distressing; assafœtida, ℈i., in pills.

10 P.M.—Easy till now; ordered opium, grs. vi., mass. ex hydrarg. grs. ij., assafœtid. ℈i., take at once. At midnight hiccup returned; repeat assafœtid., op. and blue mass.; rub in ungt. hyd., ʒij.

January 10, 7 A.M.—Hiccup gone; has frequent watery stools; repeat enema.

3 P.M.—Free from pain since last report; one stool; gums sore; tongue white and thickly furred.

January 11, 1 A.M.—Easy until now; has aching, burning, constant pain in the abdomen, in a line from pubis to sternum, and severe pain in the bladder and penis. Took, at 10 P.M., 6 grs. opium, 2 grs. blue mass. At midnight, 12 grs. opium, with blue mass. Took now 12 grs. opium, with mass. ex hyd.

Half-past 2 A.M.—Pulse 108; some tension; skin warm; pain continues. Took 12 grs. opium; extensive dry cupping to abdomen and chest.

3 P.M.—Pain continues. Took 15 grs. opium; rubbed the surface of the abdomen, chest, upper and outer parts of the thighs, with a liniment of capsicum, ammonia, and spir. terebinth, and then applied to the abdomen a moist plaster of opium, camphor and soap. The pains now disappeared.

4 P.M.—Still easy. Pulse 120, soft.

January 12, 8 P.M.—Has improved steadily till now, when he has just had six evacuations, small and watery; an enema of opium, ʒj., checked this.

January 17.—Continued improving; remedies gradually withdrawn. This day seized with severe griping pains in the abdomen; in three hours he took 24 grs. of opium with perfect relief.

January 18.—Perfectly easy.

January 27.—Used warm bath to-day with benefit; continued improving till 29th, when diarrhœa, with severe gripings, set in; had, in the course of the forenoon, 20 evacuations of dark brown matter with some

blood; checked this with opium. Made four points, as issues, with nitric acid over the abdomen.

February 1.—Vomiting of bile, and some diarrhœa; used dry cups to the surface, and stimulating liniment.

February 3.—Gave 2 grs. quinine every two hours, with opium for two days.

From this time improved daily till 19th March, when he returned to duty.

April 18.—This patient suffered from relapse. The abdominal pains recurred. They were attended with occasional vomitings. The attack continued severely until the 27th, when he slowly recovered. I depended on opium and mercury to save him. He took blue mass and calomel till the gums became sore. They were combined with morphia and black drop, which were used to a very great extent. These forms of anodynes were substituted for opium, as that had been so largely exhibited in the former attack. Pediluvia, blisters, frictions with ungt. hyd. fort., were diligently used.

May 31.—Found Carnes in bed with severe abdominal pain, for which he had applied a blister during the night. Black drop and morphia were freely used till June 1st, when severe pricking pains induced me to cup him on the abdomen to 6 oz.; to give morphia in large doses as 2 grs., also black drop in doses of from 80 to 150 drops. At midnight he rested well; awoke free from pain; skin moist; pulse slow; pupils contracted, and mind somewhat affected by the anodynes. He left Fort Wilkins on the 4th June, and has entirely recovered.

Case II.—December 29, 1844, Private Summers, Hospital Attendant, age 35; nervo-sanguine temperament; light eyes; brown hair; reported sick this day; general indisposition yesterday; headache; loss of appetite; tongue furred; nausea. Ordered sinapism to the abdomen; ℥ij. sulph. magnes.; pediluvium; low diet, and repose. In the afternoon felt better and attended to duty. At night ate freely of animal food, and

December 30, 8 A.M. complained of nausea and vomiting; sharp pricking pains in the abdomen, extending in a line from pubis to sternum; great thirst; heat of skin increased; pulse small, frequent and slightly corded. Ordered bleeding to 32 oz., which induced syncope; took 8 oz., by cupping, from abdomen; large poultice over abdomen; 3 grs. opium taken; heat to the feet during the day.

8 P.M.—Pain returned, but not so violently. Bleeding to 16 oz.; cupping to 6 oz.; poultices to abdomen; enema; Calomel, grs. 3, opium, grs. 1, take it every third hour. This prescription was continued till evening of 31st, when the mouth became very sore; the patient free from symptoms, and doing well, till

January 2, 11 A.M., acute, darting pains in the abdomen recurred; severe griping and tenesmus, with stools resembling diluted port wine, and very offensive smell; severe lancinating pains in the penis and groins. The patient being weak, pulse very feeble, I could not use bloodletting generally. Ordered cups to abdomen; poultices; enema of starch and laudanum; demulcent drinks; g. opii., 3 grs. every third hour. These remedies relieved symptoms; patient much better till

January 3, 10 A.M.—Pains returned, and were relieved by three grain doses of opium, and glysters of starch and laudanum.

9 P.M.—Nausea; vomiting; sharp, pricking pains in abdomen;

meteorism. Ordered opium, grs. vi.; calomel, grs. iij.; blister near the first.

January 4, 2 A.M.—Soreness of gums disappearing; pain severe. Ordered opium, grs. vi.; calomel, grs. iij.

11 A.M.—Repeated op. and cal. at 7; dressed the blister with ungt. hyd. Opium and calomel at 9; had three evacuations, which were highly fetid, and resembled charcoal mixed with water; tenesmus and griping. Ordered enema of starch and laudanum; ℞. Op. gr. i., ipecac. gr. i., calom. ½ gr., every two hours.

3 P.M.—Stools frequent and patient sinking under them; enema of acet. plumb. and laudanum; omit pills and give acet. plumb. grs. iij., op. grs. i., every two hours.

4 P.M.—Patient sinking; wine; continue acet. plumb., c. op.; pain ceased.

January 5.—Blistered surface looked well; circulation more energetic; slight pain and tenderness in right iliac region. Continue wine and pills.

January 6.—Patient rapidly declining.

January 7.—Dead.

Autopsy—January 8, 10 A.M.—The peritoneum covering the intestines was highly vascular, particularly that of the lower third of the ileum and of the ascending portion of the colon. Coagulable lymph was effused among the convolutions of the small intestines, and a pint of reddish colored serum was found in the peritoneal sac. The splenic portion of the mucous coat of the stomach was very vascular, and dark colored vascular patches were scattered over the mucous coat. The lining membrane of the colon and rectum exhibited marks of much recent inflammation, with some ulceration, particularly in the lower part of the rectum; patches of old cicatrized ulceration also in the rectum. About eighteen inches from the valve of Bauhin, in the colon, there was a thickening of the muscular and cellular coats to such an extent as to diminish the calibre of that intestine one-half; this, probably, is the result of previous chronic disease. The man had suffered severely from Asiatic cholera, and for years after with chronic diarrhœa. Spleen mottled and darker than usual. Liver natural. Gall bladder distended with bile. No further examination could be made.

The above was the only fatal case.

Art. IV.—*On the Employment of Quinia in Large Doses.* Communicated in a letter to the Editor. By Austin Flint, M.D., Editor of the Buffalo Medical and Surgical Journal.

Buffalo, *Jan.* 14*th*, 1846.

Dr. Lee,—Dear Sir:—In perusing the article by Dr. Van Buren, in the last number of the New York Journal of Medicine, the following paragraphs arrested my attention: "As I am no longer one of their number, I may assert without impropriety, that to the medical corps of the army belongs the credit of first testing this practice (i. e., treatment of miasmatic diseases by quinia in large doses) extensively on our continent, and establishing its superiority."

"Whether large doses of quinine are as well suited to miasmatic diseases occurring in the North and West, or at the South, remains to be proved."

I feel bound, in justice to myself, and the facts in the case, to refer your readers (with your permission) to some observations of mine which were made and reported to the profession, prior to the emanation of the circular from the Surgeon-General to the Medical Corps of the Army, which called forth the report of Dr. Van Buren, published in your last Number, and also reports of other members of the medical staff, some of which have been communicated to the profession. In so doing, however, I do not of course impute to your correspondent any want of good faith in the statements contained in the paragraphs above quoted; nor have I the least desire to derogate from the value of the testimony in favor of the employment of quinia in large doses, afforded by the extensive experience of the army surgeons in Florida, and the merit due to them, and to the Surgeon-General, in rendering the results of this experience available by means of the published reports. I would add, that I trust your readers will not think that I have any wish to arrogate to myself any peculiar credit, in referring to whatever claims I may have to precedence in these investigations; nor that the interest in the matter which this communication would imply, is greater than is both natural and proper.

In 1839, I made a series of observations on the use of quinia in large doses, in cases occurring in private practice, and among the United States troops stationed in this city. I kept a minute record of forty cases in which the quinia was administered in doses of from 5 to 40 grains. These cases I made the basis of a communication, which was published in the American Journal of Medical Sciences, in October, 1841. I do not purpose here to recapitulate the details of that communication. Those of your readers who may have any interest to examine it, can, of course, refer to the number of the journal in which it was originally published. Suffice it to say, that I reported the facts as sufficient to establish the following positions: 1st. The safety and expediency of treating intermittents with large doses of the quinia. 2d. The propriety of commencing at once with this remedy, without preparatory treatment, on the ground that the symptoms which have been usually supposed to call for emetics, cathartics, &c., as preliminary measures, were the *effects* of the continuance of the disease, and would be most promptly and effectually relieved by curing the disease itself as speedily as possible. 3d. That there are few instances of complications of this disease in which it would not be proper to arrest the disease by large doses of the specific remedy, without waiting to relieve the complications. 4th. That the patient has more security against relapse, the sooner the paroxysms are interrupted. 5th. That in cases of gastric irritability, when the quinia is not borne in doses of one grain, it may be well borne in doses of five grains. I did not enumerate these positions in this formal order, but the reader who chooses to refer to the article, will see that they are advanced and maintained. I also stated my conviction, that by carefully watching the early development and progress of cases which terminate in remittent fever, periods of partial intermission might be ascertained, when, by administering the quinia in large doses, the disease would be arrested in many cases. I then supposed, in common with most practitioners, that the remedy was incompatible with an active, febrile movement; later expe-

rience, in addition to the ample testimony of others, has satisfied me of the erroneousness of that idea.

The instructions of the Surgeon-General to the officers of the medical staff, to report the results of their experience, were issued in 1843. Dr. Van Buren states that he was first induced to employ this method from the experience of the French army surgeons in Africa, and the experiments of M. Piorry in 1838–39; and, afterward, by the experience of Surgeon B. F. Harney, U. S. Army, in 1841, he was led to pursue it more generally. The originality of the method has a date prior to my observations. Dr. Elliotson, Dr. Allan, and others had recommended it, as well as M. Piorry, and other French writers. I may repeat here that I was not aware when my experiments were made that this was the fact, but I ascertained it before publishing the results of my experience. I am not aware that any extended formal observations were published in our country before my communication. I have not taken pains to investigate this point, and I would not, therefore, by any means, assert that I am entitled to the merit (if there be any merit) of precedence in this respect. It is altogether probable that the plan had been tried, to a greater or less extent, by practitioners who did not communicate their experience to the profession.

As an illustration, however, of the light in which doses of quinia, now administered without hesitation, were regarded generally at the time my article was published, I may mention that, but a few months previous, the mistake of a patient, through which twenty-five grains were taken in the course of a day, was esteemed, by an eminent physician, of sufficient importance to be chronicled in one of our most popular medical journals!

The reader will observe the bearing of the facts which I have stated, upon both of the statements quoted from the article by Dr. Van Buren. With reference to the first of these statements, it is a matter in which, of course, the profession will take but little interest. The second statement, however, involves considerations of some scientific importance. If the occasion for the personal interest which I have expressed in the first be not appreciated, it will, at least, be deemed not unimportant to adduce my observations as showing that the same therapeutical principles in this disease, which have been found applicable at the South, have been equally so at the North and West.

Having been induced to address you on this subject, I will avail myself of the occasion to offer a few additional remarks on the use of quinia in large doses. Seven or eight years' farther experience of this remedy in intermittents has served to confirm the general views, a synopsis of which I have just presented. But there is some danger, as it seems to me, that practitioners may be led by the attention which of late has been directed to this mode of treatment to pursue it to an extreme. I have heard of sixty and seventy grains, or more, being given at a single dose, or within a short period. Judging from the effects produced by forty grains given in the space of half an hour, which was the maximum in my experiments, I cannot deem this practice judicious, even if it be devoid of danger. I did not dare exceed this quantity, nor did I feel any disposition to repeat it in other instances. At the same time it should be stated, that the unpleasant effects in this case were transient, leaving no permanent injury, but entire exemption from the recurrence of the paroxysms. My course has been, in treating intermittents, to give from three to five grains at a dose, and to repeat in one or two hours, accord-

ing to circumstances, rarely, if ever, exceeding twenty grains in the twenty-four hours. As the disease exists in this locality, I have abundant reasons to be satisfied that this method of employing the remedy suffices for all cases. By pursuing this course the effects, from constitutional idiosyncrasy, or other modifying causes, can be watched and determined, without exposing the patient to actual danger, or, at least, the disagreeable effects sometimes following the remedy.

I have also been led to believe that by continuing the remedy in doses of three or five grains, daily, for some time after the paroxysms are interrupted (say for two or three weeks), the patient is less liable to relapses. It will not render him exempt from relapses, but, in so far as I can judge without having gathered recorded data on the subject, he is less likely to suffer from a speedy recurrence of the disease. That the system will suffer from continuing the remedy in larger doses than are just specified, I regard as an entirely gratuitous supposition. While prosecuting my observations formerly I administered it in doses of 50 grains daily, and continued it steadily for several weeks, in a case of obstinate neuralgia, without any ill consequences; but it should be added, without producing any impression on the disease. Large doses continued for such length of time, are not, however, to be recommended, since if the desired effect be not produced within three or four days at farthest, it is not probable that the treatment will be successful, and under such circumstances we are not justified in persisting in the use of any remedy.

The treatment by large doses *ab initio*, possesses advantages which our patients would hold in great consideration could they appreciate them. In nearly half the cases which will occur (I speak from my experience in this locality) in general practice, a second paroxysm will not recur if we are called to prescribe directly after the termination of the first; and the instances will be rare in which the patient will have to experience a third paroxysm. Cases, therefore, which, under the system of preparatory treatment and small doses, would have been more or less protracted, being speedily arrested, the debility incident to the continuance of the disease, and the various secondary disorders flowing from this continuance are avoided; the patient loses but little time, and the system suffers comparatively little. It has not unfrequently occurred to me to ward off relapses by taking cognizance of the first intimations of their approach, and resorting promptly to the remedy in adequate doses. By pursuing this course, although we cannot place our patients beyond the liability to attacks for a considerable period after the disease has been once incurred, yet the means of relief, or prevention, are so precise and sure, as well as prompt in their efficacy, that this liability imposes but trifling inconvenience. Notwithstanding our use of this specific is entirely empirical, the *modus operandi* being removed from the application of rational principles of explanation, there is probably no disease the treatment of which is reduced by experience to such definite and certain rules as that under consideration. If principles of therapeutics generally had the same character, medicine would have strong claims to the title of an *exact science.*

The applicability of the quinia to fevers of a remittent and continued type is a subject of much interest at the present time. The idea that the presence of febrile movement positively contra-indicates its administration, for a long time deterred practitioners from venturing to employ it in these forms of febrile disease. Abundant testimony is now before

the profession to disprove this idea; and it must soon be regarded as obsolete. Prof. Mitchell, of Transylvania College, in a late number of the Western Lancet, advocates its use in fevers of every description—continued as well as remittent, and adduces his own experience in confirmation of this plan. I have also been credibly informed that some western practitioners, viewing its medicinal properties to consist in an antagonism to the febrile condition *per se*, whether it be dependent on essential fever, or symptomatic of local inflammation, prescribe it freely in the latter case as well as in the former. I have known of its administration in a case of pneumonitis in doses of ten grains, morning and evening, for two consecutive days, and can testify that it produced in this case no evil results, and did not retard the march of the disease towards a favorable issue. It would be difficult to reconcile this practice with preconceived notions, or any known principles of pathology or therapeutics. Nevertheless, the singular virtue which the remedy possesses in intermittents has been only empirically established—the rationale is beyond comprehension; and, in enlarging the sphere of its efficacy in curing disease, we must be guided wholly by the same method of investigation. Our progress must, in the present state of our knowledge, be altogether inductive: we can assume nothing *à priori*, nor have we any grounds even for synthetic speculations on the subject. Facts which have been presented to the profession are sufficient to authorize experimental observations of its effects in fevers of every type, and, perhaps, even in inflammatory affections; and it is to be hoped that a sufficient collection of data will ere long be available for deducing some general principles of its applicability to these forms of disease.

My experience with this remedy in the mild remittents indigenous here has been quite limited. I have, however, made use of it to some extent, and, so far as I may be permitted to judge, without professing that the number of observations is sufficient to warrant any positive inferences, it has in some cases seemed to check the disease in its early stage, and bring it to a speedy and happy termination. As an illustration of this I will subjoin the following case transcribed from my case book.

S. H.—M. D., aged about 27, delicate constitution; resides in a part of the city somewhat exposed to miasma. Began to feel headache, pain in moving the eyes, and general *malaise*, on the 24th July, 1845. On the 25th he took some sup. tart. potassæ; 26th, at evening, took an emetic, which acted freely both as an emetic and cathartic. Experienced some chilly sensations at various times on this and subsequent days, but no distinct chill. Has had attacks of intermittent and remittent fever formerly. 27th. Took calomel, grs. x., followed by a Seidlitz powder, which operated freely. 28th, P. M., requested me to attend him, when I saw him for the first time. Symptoms as follows: temperature of skin somewhat raised, and dryness of the surface; pulse 110, somewhat corded, not full nor hard; headache, dizziness on raising the head; tongue coated, white at sides, and dark in centre; thirst; anorexia. No local pains, excepting in the head; no cough, nor tenderness of abdomen. The latter soft and undistended. Urine scanty and high-colored. The following was advised: P. Doveri. grs. iv. every four or six hours, as his sensations of its effect should dictate. Spts. nitre dulc. ʒj every four hours. Weak lemonade, sponging with diluted spirit, and mustard pediluvium at night.

29th.—Patient sitting up, free from fever and headache, and eating

chicken broth. Stated that he began to perspire last evening, and continued to do so for several hours; after which he slept soundly, and awoke a new man. The disease is either a febricula or the present is a remission.

30th., P. M.—I was again desired to see him; I found him with accelerated pulse, hot skin, headache, &c. I learned that toward evening of the preceding day he had return of febrile symptoms, which had continued through the night. His friends told me he had been somewhat delirious during the night. Had had one dejection this morning. Prescribed the following:—

℞. S. Quiniæ ℥j
P. Doveri ℥j
M. Divide in chart., No. 5.

One to be taken immediately, and if no inconvenience, to be continued every six hours.

31st, A. M.—Patient perspiring freely; pulse of natural frequency; head clear. He began to perspire about midnight. Had taken 3 of the powders previously, which had not occasioned the least inconvenience. Continued powders every six hours. Had had no chill preceding the recurrence of the febrile movement, but felt chilly constantly, notwithstanding the heat of surface.

P. M.—Found him with fever. Directed quinia to be continued through the night.

Aug. 1st.—Febrile movement continues; passed a restless and uncomfortable night.

This morning took castor oil, the bowels not having been moved for two days.

P. M.—Fever continues, but less than on the preceding evening. Oil operated freely. Had taken 4 grs. of quinia at noon, and felt somewhat disinclined to continue it. Complained of ringing in the ears, but it is doubtful if it proceeded from the quinia. Has had this symptom previously. Directed grs. ii. to be given every four hours.

2d.—This morning found him in free perspiration; no febrile movement. Had began to perspire shortly before my visit (at 9 A. M.). Had been restless through the night, but more comfortable than during the two preceding nights. Expressed much hesitation and doubt about taking the quinia, but, at length, consented to take grs. ii. every four hours. [Being a medical practitioner, he was, of course, aware this was not the current practice in such cases.]

P. M.—Still perspiring, which has been encouraged by warm drinks and bed-clothes. Has had singing in ears, and tension of forehead, pretty evidently from the quinia. Has passed a comfortable day. At his desire prescribed calomel grs. ii., p. Doveri. grs. iii., every four hours, omitting the quinia. He has taken 40 grains of the latter up to the present time (3 days). Tongue is covered with thin, moist, yellowish coat.

After this date he had no return of fever, and was abroad in a few days. Since his recovery he has had an attack of intermittent, which was promptly arrested by quinia.

In reviewing the foregoing case, I think the practical reader will coincide in the opinion that the symptoms indicated an attack of remittent fever, which he would not be expected, with the usual practice in such cases, to terminate in four or five days. The patient, a practitioner of medicine, although he felt considerable antipathy, at the time,

to the quinia, has been induced to become a strong advocate for its use in similar cases.

The testimony of Dr. Mitchell (above referred to) has led me to make trial of this remedy in a case of typhoid fever which has recently occurred in my practice. Of course, I would not presume to draw any conclusions, excepting those of a negative character, from a single case. This trial has satisfied me that it may be given without impropriety in this form of fever. It was given repeatedly during the progress of the disease to the amount of 20 and 25 grs. in the 24 hours. Convalescence was established on the 18th day. Although the disease was not arrested, yet, if it were proper to make deductions from this case alone, they would be favorable to the immediate effects of the remedy. The case has increased my interest to test its influence by farther trials. This will not perhaps be practicable to much extent, as the typhoid form of fever is of rare occurrence in this locality. I would venture to suggest it as an object of scientific interest, if not importance, to those practitioners in the eastern part of the State, and in New England, who have abundant opportunities to witness the disease.

ART. V.—*On the Chemical Changes which take place in certain Medicinal and Poisonous Substances in the Stomach.* By E. C. BIDWELL, M.D., of Brooklyn, N. Y.

IN the recent edition of "Thomson's Conspectus," in the article on Toxicology, it is stated that the *carbonate* is the only poison of lead, and that all the salts of lead, and also the red oxide, are converted into the carbonate after being taken into the stomach. An equivalent observation is to be found in the work of Christison on Poisons. I presume it is the doctrine generally received and taught, as I know it is by one of the most eminent professors this country affords.

From such authorities I know it is not prudent to differ hastily, or without a careful examination of all the premises, and the most rigid reasoning upon them; yet, having entertained a different opinion in regard to this article, and some others which may be arranged in the same category, and finding that opinion corroborated by such observations as I have been able to make, I am induced to give it, and the reasons of it, to the profession, and to bespeak for it their attention, trusting that the whole subject, now confessedly obscure, will yet be completely elucidated, and the exact truth ascertained.

The hypothesis objected to recognizes, and is indeed dependent upon the principle, which may with equal propriety be extended to include every other chemical element, that it is only in a single form or combination capable, *theoretically* and strictly, of producing a particular train of physiological effects, and that all other forms or combinations of that element, which *empirically* produce the same effects, only do it after undergoing a change of their chemical constitution, by which they are severally brought to the single form first mentioned; which change is effected after administration by the reaction of the acid or saline secretions of the stomach. This principle I would not wish to question, but rather to maintain, since it is equally essential to the views I propose, as

to those I refute. It seems not to be admitted, however, by the United States Dispensatory, and by the systematic works on the *Materia Medica;* for they treat of each metallic base as having a physiological action common to all its compounds, and of each compound as possessing that common property, with certain others superadded, peculiar to itself. It is nevertheless sustained by the whole analogy of chemistry, inasmuch as all substances, simple or compound, when they enter into new combinations, lose most, often all, of their sensible and physical properties; and it would be the merest chance, at least not to be calculated from any previous knowledge of the elements concerned, if any two distinct compounds of the same element should possess properties identical, or even similar. That, through all their repeated and radical changes in all other respects, any substances should retain their original medicinal properties, is so exceedingly improbable as to require to be substantiated by the clearest proof, before our credence is demanded for it.

It may be assumed then as, if not demonstrated, at least probable, and so far as we know undenied, that certain medicinal and poisonous substances do meet with certain chemical changes in the stomach, by which they are converted into another substance, having an element in common with them—and that the new substance so produced has the same action on the animal economy as when administered in its own character. But that in the case of the article now under consideration, it is *not the carbonate* which is so produced, or which either so produced, or taken in substance, is capable of producing, without any further change, the effects attributed to it. *Colica pictonum*, paralysis of the extensors of the hand, and the general symptoms constituting the lead cachexy, seems to me to be probable from the following considerations.

1. *Its insolubility. Corpora non agunt nisi soluta*, was the ancient maxim, in chemistry and in medicine. If not an universal truth, it approximates to it, and there are very few general rules or principles of which more can be said. Insoluble substances, taken into the alimentary canal, may act locally as foreign bodies, producing various degrees of irritation, according to their different physical properties; but it cannot be maintained that any, remaining insoluble, are absorbed in the solid state, or act upon the constitution, except as it is affected through sympathy with the local irritation; in which case the symptoms would not be of a character to indicate the operation of a specific poison.

2. *Its chemical relations.* Carbonic acid has *less affinity* than almost any other acid for lead, as well as for most other bases. All the carbonates are readily decomposed by the stronger acids *out* of the stomach, and so far as our observations teach, *in* it also. A familiar example of the latter is to be found in the carbonate of magnesia, the purgative operation of which is known to depend upon the amount of acid present in the stomach. I know of no reason why we should not expect it as a constant result. Examples of the former are extremely frequent in the laboratory and in the arts, and one is furnished by the subject of the present discussion. Of course it is exactly in point. One of the common modes of preparing the acetate of lead, is by subjecting the carbonate to the action of acetic acid. In that operation the carbonic acid is driven off by another, which has a stronger affinity than its own for the lead. This being the case, it is manifestly impossible that the acetate should be reconverted into the carbonate, simply by the presence of carbonic acid, though this, if I understand it, is the doctrine taught by the

authorities quoted at the head of this article. It is true that if the *neutral* acetate has been deprived of a portion of its acid by the action of heat, or certain re-agents, or an excess of the base, and in that way reduced to a *basic* or *sub* salt, carbonic acid, *out* of the stomach, may unite with so much of the lead as will restore the remaining acetate to its neutral condition. But *in* the stomach, even if carbonic acid were always present, the same reaction cannot take place, because there is also a stronger affinity always in operation. *Chlorine*, in free muriatic acid, in muriate of ammonia, and in common salt, is always present in healthy gastric juice; it is capable of decomposing *all* the carbonates, of whatever base, and also most other salts of lead. In all these cases there is formed the *chloride of lead;* and this I conceive is the product which, with the conditions above described, we ought to expect, and which, whether produced by double decomposition in the stomach, from the carbonate, the sub-acetate or oxide of lead, or otherwise introduced into the system, is the only immediate cause of the circle of phenomena known as the poison of lead.

The reason then why the carbonate is practically so much more injurious than any other salt of lead ever taken into the stomach—the chloride itself being unknown in the arts and in medicine—is simply that it is more easily decomposed than any other; and any portion that may not be decomposed at first, remains exposed to the same re-agent till it is decomposed, thus by the gradual introduction of the true poison, keeping up a continued impression upon the system. The acetate, administered in small doses and long continued, produces the same effects; but there is little danger of those effects following a single dose, however large; for, as it can meet with but a small amount of muriatic acid in the stomach, at any one time, perhaps ordinarily none at all—since it seems to be well ascertained that the gastric juice does not pre-exist in the stomach, in anticipation of food, but is furnished only as its secretion is provoked by the presence of alimentary or other solid substances—but a limited amount, if any, of this salt can be changed into the chloride; less than a sufficient quantity to produce the phenomena in question. The sulphate is both insoluble and undecomposable by muriatic acid, and consequently inert. Sulphuric acid, properly administered, is therefore an infallible prophylactic against the poison of lead; hence, the rational treatment adopted in some of the large manufactories of that article, by drinks acidulated with this acid.

The operation of *mercury* upon the general system may be very satisfactorily explained in the same way. The corrosive sublimate—*bichloride*—when taken in a large dose, acts as a violent irritant poison; but in very small and repeated doses it produces the effects of the mercurial preparations generally. Calomel—protochloride—is totally insoluble; it becomes soluble by uniting with another atom of chlorine from the muriatic acid of the gastric juice, becoming the bichloride, and is then absorbed and acts upon the constitution. But a minute quantity can be thus changed at any one time; hence it is that calomel does not produce the violent symptoms which follow a poisonous dose of the corrosive sublimate; and hence it is too, that the effect of calomel is by no means proportionate to the dose, which fact is of itself presumptive evidence that it does not act by a power properly its own. The blue mass is less efficient than calomel, because in it the metal exists in such a form as requires, for its conversion into the bichloride, two atomic equivalents of chlorine instead of one.

Upon this theory we should expect that the addition of an antacid in medical language, or in chemical language, a stronger base, would, by neutralizing the free acid, materially affect the operation of mercury so combined. Fortunately our logic and the facts of the case agree perfectly; for we find that the *hydrargyrum cum cretâ*, though it contains a rather larger portion of the metal than the last preceding, is still considerably less efficient.

This theory also suggests that, and explains why, the bichloride should be more efficient and more manageable, and therefore preferable, when it is desired to produce a decided constitutional effect, with little disturbance of the digestive organs.

These views, if correct, are of no small practical importance, and with regard to their truth the most critical examination is solicited. The remarks now made in support of them might be much farther extended, but what has been written will serve as well as a longer article, to call the attention of medical men to the subject.

ART. VI.—*Case of Carcinoma of the Stomach, with Remarks.* By Pliny Earle, M.D., Physician to Bloomingdale Asylum for the Insane.

ON the 24th of March, 1838, during my attendance, there entered the Ward of Dr. Louis, in the Hôtel Dieu Hospital, at Paris, V. D., a married woman, 35 years of age, who had had five children. Her menstrual courses commenced at the age of 13 years, and had always returned at regular periods. During pregnancy, she had always been subject to nausea and vomiting, and said that her digestion was very poor during her last pregnancy but one. She was delivered of her last child five and a half months previously, after a painful gestation of seven months. In the intervening period she had vomited occasionally, and been subject to inordinate thirst and diarrhœa. About two months before admission, her thighs and abdomen became tumefied, and she entered the Hospital La Charité, where, after remaining five weeks, the tumefaction entirely disappeared. While in that hospital, she vomited but little. Five or six days before entering the hospital, she threw up, for the first time, a quantity of blackish green fluid. She was frequently annoyed by sourness of the stomach, preceded by pain, and could rest well only upon the left side. She had never received any severe blow in the region of the stomach, and was not accustomed to the use of alcoholic drinks. She suffered occasionally from abdominal pains, became restless, and screamed at times. The stools were liquid. She vomited several times during the night, the matter ejected being a very dark colored liquid, containing mucus.

Present State.—Memory and intellect apparently intact; face pale and emaciated; sight good; pupils slightly dilated; pulse 84, small; tongue white. The respiration is natural under the right clavicle, the only place at which, owing to the decubitus of the patient being on the left side, and pain being caused by motion, it is convenient to examine. The abdomen is voluminous and presents a protuberance, or tumor, on the left side of the median line, in the region of the stomach, and having nearly the form of that organ, though greater than its usual size. It is

soft and gurgles upon pressure; its lower border is below the level of the umbilicus. On the right of the median line, midway between this protuberance and the cartilages of the false ribs of the right side, there is another tumor, small, hard, giving a dull sound upon percussion, and gurgling under pressure. The patient feels a sensation like that of hunger, below the xyphoid cartilage. During the examination, she was taken with colic pains in the region of the umbilicus.

Treatment.—Gum syrup; one bottle Vichy water;* an enema containing ten drops of laudanum;† diet—soup.

25th. She has vomited five times since yesterday morning. A portion of the substance rejected, say one-fifteenth, is a dark brown mucus, which is mostly deposited at the bottom of the dish. The small tumor still gives a dull sound upon percussion. Pulse 84; face somewhat jaundiced. Continue treatment, increasing the laudanum to fifteen drops.

26th. Has vomited but once; the substance similar to that of yesterday. Continue treatment, and apply emollient cataplasm to the epigastrium.

27th. Has vomited about two quarts of a transparent liquid, which is of a deep bistre color, and has deposited a quantity of mucus similar to that heretofore mentioned. It is somewhat flocculent. Continue treatment.

28th. Has vomited many times, and thrown up nearly five pints of liquid similar to the last. The rejected Vichy water constitutes a large portion of the liquid vomited.

29th. Nearly three quarts of fluid discharged by vomiting. Occasional pains in the abdomen and region of the stomach continue.

30th. The quantity of matter rejected is about half as great as yesterday, and is much less deeply colored. Face and lips pale; countenance less expressive of pain than heretofore; emaciation progresses; pulse 108, small; tongue moist and white; heat of skin nearly normal. The abdomen is less voluminous, the tumors are less clearly defined, and are nearly resolved into one. This commences one and a half inches below the cartilages of the false ribs of the right side, its borders making two curvatures, the larger of which extends two and a half inches below the umbilicus. It still resembles the stomach in form, but is smaller than the ordinary size of that organ. Its diameter near the right extremity is three and a half inches. A sudden pressure upon it causes a gurgling within. Continue treament; regimen—soup, one egg, lentils.

31st. Lancinating pains in the abdomen, succeeding emesis in the night. The substance is much less colored than formerly, and contains undigested food and greyish mucous flocculi. The cataplasm upon the epigastrium is changed every twelfth hour.

4th month (April) 1st. Less pain of abdomen; vomiting as yesterday. Treatment—suppress the gum syrup and give two bottles of Vichy water.

2d. The patient has vomited more than a quart of liquid of the color

* The Vichy water, so named from the village at the springs whence it is derived, holds in solution, in different proportions, the following substances, viz.: carbonic acid, the sub-carbonates of soda, lime, magnesia and iron; sulphate and hydrochlorate of soda; silex; and a variable quantity of a green "vegeto-animal" matter. It is said to be of great utility in engorgements of the viscera, particularly of the spleen and the liver.

† Ten drops of this laudanum, called *gouttes de Rousseau*, contain about one and a quarter grains of opium.

of coffee much diluted with milk. It contains flocculi and undigested food. The hard part of the tumor is nearly round, the umbilicus being in its centre; the soft portion has acquired about the same volume as when the patient entered the hospital. The gurgling under pressure continues. The tumor retains its position when the patient moves.

8th. She has vomited but once during the last three days. The liquid was then colorless. The tumor is now nearly circular, its hard portion being wholly to the left of the median line, and the umbilicus situated just within the right and lower part of its circumference.

13th. No vomiting since the 8th inst.; some pain in the stomach on the 10th. She says she has as many as ten stools every day. The evacuation of last night contained portions of black blood.

16th. No vomiting since the last observation; no acute pain. Agitation of the abdomen produces gurgling in the tumor. Resume the gum syrup.

18th. Vomited last evening, but threw up no dark colored matter. Yesterday at 11 o'clock, A.M., a pain commenced in the left side of the thorax, followed by cough and palpitation of the heart. She had been exposed to a current of air. Pulse, now, 140; tongue white; heat of skin elevated. The left side of the thorax, posteriorly, is less sonorous than the right, upon percussion. The respiration is feeble, remote and obscure, with slight resonance of the voice, and no ronchus. Treatment—diet, with quince syrup; cut cups over the painful part of thorax, followed by an emollient poultice.

20th. No vomiting since the last notes. Pulse 120; tongue moist and white. Sputa not abundant; a portion of it is orange colored. Treatment—diet, syrup of quinces. An enema of infusion of capsules of the white poppy.

21st. Pulse 140, small; sputa not colored, slightly airy. No pain in the left thorax. Posteriorly, on this side, the sound is obscure upon percussion in the inferior half. The respiration is dry, with some bronchophony, and trembling of the voice. Apply a diachylon plaster to the left thorax, behind. Died at 9 o'clock P.M.

Autopsy.—Forty hours after death. No rigidity of limbs; body and limbs much emaciated, and very pale. The inferior limbs are œdematous, the left more so than the right. A citrine serosity issues from incisions made through the integuments.

Abdomen.—A very slight effusion into the cavity of the peritoneum. The *stomach, in situ,* appears white as ivory, smooth and polished. It is hard to the touch, and evidently considerably enlarged. The small curvature is adherent to the liver, by cellular tissue unequal in thickness, and containing plates of semi-transparent, flat and confluent granulations. The parietes of the stomach are cut with much more difficulty than is usual. They are of ordinary thickness in the great cul de sac, but hypertrophied in the opposite extremity. The portion not diseased, including the cul de sac, and a portion of the large curvature, contains some red, punctillated spots in the mucous membrane. The diseased section, including most of the small curvature, and the pyloric region, is surrounded by an elevated border, a quarter of an inch in height. The included portion is hypertrophied, being the most so near the pylorus, where it is one inch in thickness. The substance of the diseased part is yellowish, brilliant upon section, and contains red striæ. It has the consistence of a hard jelly at its surface, but grows harder as the mus-

cular coat is approached. One and a half inches from the pylorus are several semi-opaque points, like granulations. They are brilliant upon section, and do not extend into the muscular coat. In the line of the small curvature the hypertrophy is less, and the color is grey instead of yellow. The muscular coat is beneath the substance described; it is from one to one and a half lines in thickness, and preserves its normal character in most places. Between it and the diseased mass the cellular tissue is in some places visible, but not where the hypertrophy is greatest. The intermuscular cellular tissue appears hardened and cries under the scalpel, in some places, but does not impart a cellular appearance to the muscular tunic.

Some of the mesenteric glands are hypertrophied, pale and lardaceous.

The peritoneal surface, on both the viscera and the abdominal parietes, is clothed, in a great number of places, with numerous small patches of a greyish, transparent, false membrane. Some of these are isolated, others confluent, particularly towards the inferior portions of the cavity. They are strongly adherent to the peritoneum, but are developed entirely upon its surface; some may be elevated without lacerating it; others cannot. The peritoneum appears to be thicker where the membranes are the most conglomerate; this is owing to the existence of a continuous false membrane, within or upon which the smaller ones are developed. The whole peritoneal surface of the bladder is covered with a false membrane of this kind, upon which the small membranes are confluent.

Liver.—Dimensions: 7 inches long, 7 inches wide on right lobe, and 2½ inches thick. It has a yellowish tinge externally, with some spots perfectly yellow. Internally, greyish; does not grease the scalpel; the vessels contain but little blood. At the anterior border of the right lobe there is a large yellow spot extending a quarter of an inch in depth. The tissue appears, in this place, to be unchanged otherwise than in color.

Spleen.—Its several diameters are 5, 3, and 8 inches. 1 inch, respectively. It has a large number of small, whitish granulations upon its surface.

Small Intestines.—The space occupied by the valvular conniventes contains a quantity of yellowish mucus. The mucous membrane is of a greyish tint and contains some arborisations, but is, apparently, neither thickened nor softened.

Cæcum.—The internal surface is of a deep, and somewhat livid, red color. The mucous membrane is generally softened and thickened, but is nearly destroyed in many places. The deep color terminates about midway of the ascending colon. The remainder of the internal surface is greyish, with some arborescent spots.

Thorax.—Left lung.—Adherent on the lateral portion of the superior lobe, and the anterior inferior portion of the lower lobe. The two lobes are partially adherent to each other. The lung floats in water, the lower lobe sinking, however, much deeper than the upper lobe. The former is very dense, as well as the posterior portion of the latter. The lower lobe, upon section, is of a uniform grey color, interspersed with small black points. A grey, spumous mucosity exudes upon pressure, and the finger penetrates the tissue with sufficient ease. No trace of tubercles.

The right lung adheres laterally and posteriorly, but less than the left lung, and contains a small, cretaceous deposition near the surface of the lower lobe.

Heart.—The heart is 3 inches in length, and the parietes anormally

thin. The right ventricle contains a small, membraniform clot, interwoven with the columnæ carneæ.

Brain.—There is no effusion into the lateral ventricles, and the medullary matter is not punctated with blood.

The above is a case of cancer of the stomach of perhaps medium severity, whether we regard the intensity of symptoms or the extent of pathological changes. In its diagnosis, at the time of the entrance of the patient into the hospital, there was but little difficulty. The existence of the tumors in the epigastrium, the larger of which simulated the form of the stomach, together with the gurgling upon pressure, and the almost daily vomiting, rendered it nearly impossible that the true nature of the disease should be mistaken. This is generally true of all those cases in which the cancer has obtained a sufficient development to be sensible upon the external surface of the abdomen. On the contrary, when the cancer is still so small as not to be detected by either the sight or the touch, the diagnosis becomes more difficult, though, as a general rule, it may be arrived at with a very good degree of certainty. Still there are cases, and particularly some of those in which the small curvature of the stomach is the seat of the affection, in which it is impossible to decide positively upon the nature of the lesion. Bouillaud relates a case in point. "A woman, advanced in years, but presenting all the attributes of perfect health, died at the Cochin hospital (Paris), from the effects of a fracture of the neck of the femur. Upon opening the body we were not a little surprised to find four cancerous vegetations upon the posterior face of the stomach, not very remote from the pylorus, but offering no obstruction to that orifice."*

The affection most frequently resembling cancer of the stomach, and perhaps the only one the symptoms of which are not sufficiently pathognomic to prevent a mistake of the one for the other, is chronic irritation or inflammation of the gastric mucous membrane. Some authors have considered lancinating pains in the stomach as characteristic of cancer. With these, the patient whose case is here reported was sufficiently troubled. Andral, however, says that they are rarely an attendant of the disease; that in the cases which have come under his observation, some had no pain, others merely a sensation of weight in the epigastrium, and many were free from pain excepting after their meals. Moreover, he has seen some cases of extensive ulcerations of the stomach, in which the only symptoms were anorexia and a slight pain after eating. The same author, after having compared the characters and intensity of the pain in the two diseases, the divers disorders of digestion which accompany them, the nature of the matter ejected by emesis, and the general or sympathetic symptoms, concludes that, "aside from the cases in which a tumor is felt through the abdominal parietes, no positive sign exists by which to distinguish that which is called in ordinary medical language, a cancer of the stomach, from that which is named chronic gastritis."†

Of the symptoms usually attendant upon this affection, but to which we have not previously alluded, this patient had yellowness of the skin, emaciation, and sourness of the stomach.

From the existence of the small, hard tumor upon the right of the

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* Dictionnaire de Médecine et de Chirurgie Pratique. Art. Cancer.

† Clinique Médicale.

other, and subsequently merged therein, and from the length of time which usually elapsed between the taking of food and the occurrence of vomiting, the inference was almost necessary that the pyloric region was the seat of the disease. Had the vicinity of the cardia, and especially that portion of it immediately surrounding the orifice of the œsophagus, been involved, the emesis would, undoubtedly, have immediately followed the act of swallowing.

The prognosis in this case was necessarily unfavorable, though the patient might have lingered some time longer had it not been for the supervention of the pneumonia. Bouillaud says, "I know not that a single case of cure of a well-characterized cancer of the stomach has ever been published." In its treatment, nearly the whole of the long catalogue of medicaments tried in cancer of other parts of the body have been administered.

The author just quoted, assuming as a fact established by his former argument, that the affection is invariably the result of chronic irritation of the gastric mucous membrane, a conclusion which conflicts with the opinion of Andral, Louis, Bayle and Cayol, recommends local depletion, internal emollients, and a rigid diet, as the means most likely to effect a cure. Purgatives and emetics he declares to be "veritable poisons." Abstinence from alcoholic drinks, a milk diet, saponaceous pills and the use of some mineral waters, particularly those of Vichy and Plombières,* as beverages, are strongly recommended. This medication may retard the progress of the disease, if it do not entirely remove it. Dr. Recamier, of Paris, says he has cured some cases by compression.

If gastric scirrhus cannot be cured, its development may be prevented by avoiding or abstaining from its exciting or determining causes. Among these are, habitual excess in eating, the too free and frequent use of spirituous liquors, blows or prolonged pressure upon the epigastrium, depressing passions, and finally, anything which may determine an irritation of the mucous membrane of the stomach. To none of those which are here definitely specified, if we believe the testimony of the patient, could the present case be traced.

The stomach, in this case, as is seen by the notes upon the autopsy, was dilated as well as hypertrophied. Such a condition of the organ is not uncommon, though not very frequent in this disease. Of eight cases, the pathological appearances of which are detailed by Bouillaud, in one only was the stomach anormally distended. Andral reports a case, in which the stomach was so enormously enlarged as to cover the whole mass of the abdominal viscera, and even to touch the os pubis. This dilatation undoubtedly originates in a mechanical cause. It is believed never to occur except in those cases in which the pylorus is contracted. When that orifice becomes diminished, the free passage of the chyme into the duodenum is prevented, it accumulates in the stomach, and, together with the gas which is generated therein, exerts a powerful influence in enlarging the dimensions of the organ.

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* The water of Plombières, like that of Vichy, receives its name from the village located at the springs whence it is derived It contains the sub-carbonate and the sulphate of soda, silex, hydro-chlorate of soda, carbonate of lime, and a large quantity of "vegeto-animal" matter which gives to the water an unctuous appearance. The water is useful in engorgements of the abdominal viscera and in chronic affections of the skin.

In this disease, the mucous membrane of the stomach may be found either in a normal condition or a state of simple hyperæmia, it may be softened, hardened, hypertrophied, atrophied, or ulcerated, and, in a limited space, entirely destroyed. In the case before us, it was reduced to a mere pulp upon the whole of the affected part. In Bouillaud's eight cases, there was a general softening of the membrane in six, and a destruction of it in some places by ulceration, in two. When ulcerated, the other tunics of the stomach are generally destroyed, and in some cases, the partially digested aliment has been thrown through the opening into the cavity of the peritoneum, or, from a simultaneous ulceration of the diaphragm, or the colon even into the latter viscus, or into the cavity of the thorax. Generally, however, the vix medicatrix naturæ takes the precaution to guard against an exigency of this kind. The external borders of the ulcerated portion throw out coagulable lymph, by which adhesions are formed between them and the pancreas, spleen, or other adjacent organs, the parietes of which supply the place of that part of the stomach which is destroyed.* The ulceration sometimes extends into the liver or the spleen.

The cellular tissue, subjacent to the mucous membrane, is generally the seat of schirrus of the stomach, the disease being, indeed, nothing more nor less than a hypertrophy of that tissue. It becomes thickened throughout a greater or less extent of surface, opaque, of a pearly or ivory white, and traversed by apparently but few blood-vessels. Such was the condition of a large portion of it in the case before us.† In many cases, however, in which the disease advances, this tissue becomes more vascular, is divided into lobulæ, excavated, forming caverns, and at length secretes a morbid matter of a liquid or gelatinous consistence.

The belief of Bouillaud, that hypertrophy of the sub-cellular tissue of the stomach arises from chronic inflammation, or "irritation" of the mucous membrane which covers it, has already been remarked. Andral, in his Anatomie Pathologique, observes that such is its origin "in the greatest number of cases." In the case here reported, Louis, finding no traces of such inflammation or "irritation," did not believe that it had ever existed. He offered, also, a plausible argument in favor of the opinion that such "irritation" is not the most frequent cause of the disease. This was, that while cancer, in point of frequency, occupies, firstly, the pyloric region; secondly, the small curvature; and lastly, the great curvature; inflammation has its seat in those regions *in precisely the inverse ratio.*

The intermuscular cellular tissue of the muscular tunic of the stomach occasionally becomes hypertrophied, simultaneously with the cellular coat itself. The former tunic then assumes a cellulated or areolar aspect, or if further advanced, increases so greatly as to force asunder the muscular fibres and scatter them in distances more or less remote from each other, according to the extent of the anormal development. Neither of these states existed in the present case, although the cellular tissue in question was sufficiently hardened to creak under the scalpel. The mus-

* One of the cases reported by Bouillaud is of this description.

† A similar pathological state of the sub-cellular tissue occurs in the large intestines in some cases of chronic diarrhœa, beneath the skin, in the vicinity of chronic ulcers, and between the pulmonary lobulæ in some affections of the lungs of long standing.—Andral.—*Précis d'Anatomie Pathologique.*

cular fibre itself may become hypertrophied. This lesion is much more frequent in the vicinity of the pylorus than in any other region of the stomach. Dr. René Prus considers the frequent vomiting in gastritis to be a powerfully exciting cause of this affection. The fact of the more frequent occurrence of the lesion near the pylorus may, perhaps, be accounted for in the greater motion of that region in the physiological condition of the organ.

Finally, the cellular tissue intervening between the muscular and peritoneal coats may become hypertrophied, in connection with either or all of those heretofore mentioned. In the case here reported, this lesion did not exist. The blood-vessels may become dilated, either with or without hypertrophy, or they may be inflamed, as in two cases of gastric phlebitis reported by Andral. From excessive dilatation, a rupture may supervene and give rise to hematemesis. The dark-colored matter rejected in the case reported could not have arisen from such a cause. It was, undoubtedly, an anormal secretion of the mucous follicles, or of the cellular tissue, with, perhaps, a slight effusion of blood from the capillary vessels of the tissues affected. The blood in the stools undoubtedly came from the mucous membranes of the large intestines. Louis remarks that the description of vomit which occurred in this case is "*almost* pathognomic of an organic lesion of the stomach." Inasmuch, however, as it occurs in more than one disease, it cannot be considered as pathognomic of either.

Some of the lymphatic glands were enlarged and softened in this case. This lesion is almost invariably attendant upon affections of this kind—more frequently so in the glands of the mesentery than in those which are in the more immediate vicinity of the stomach. Dr. René Prus reports a case in which the right œsophagian cord of the pneumogastric nerve was hypertrophied at its lowest extremity to twice its usual dimensions.

Carcinoma of the stomach is more frequently situated near the pylorus than in any other section of the stomach; the small curvature ranks next in its liability to the disease, while the cardiac region is less so than either. No special cause for this preference of position, by the affection, is mentioned by writers on the subject, other than the predominance of cellular tissue in those parts most frequently affected. Of thirteen cases collected by Louis, seven were in the vicinity of the pylorus, five in the small curvature, and one in the cardiac region. Of Bouillaud's eight cases, five were near the pylorus, two in the small curvature, and one in the cardiac region. Andral remarks that he knows of no case of hypertrophy of the cellular tissue in the great cul de sac.

The duration of the disease is various; in this case it is probable, from what could be gleaned from the patient, that it had existed as much as eleven months. Louis mentions two cases which terminated fatally at the expiration of four months from the time at which they were first detected. In these the disease was seated at the cardiac orifice, or in the small curvature, not very remote therefrom. It is not uncommon, according to the same authority, for those in the pyloric region to continue fifteen months and more. Indeed, he reports a case of ten years standing. At several different periods the patient vomited a dark-colored fluid, having, at the same time, a tumor in the epigastrium. During the last three years, however, although the tumor remains, there has been no recurrence of the emesis.

The patient whose case we have reported was at the age in which cancer of the stomach begins to be more frequent than in earlier life. The

disease is rare previously to the age of thirty, and subsequently to that of seventy. Its period of greatest frequency is from thirty-five to seventy. Andral, however, mentions a case in a young man but nineteen years of age, and another in a gentleman of seventy-nine.

The false membranes formed upon the peritoneum in this case were undoubtedly developed consecutively to an inflammation of that membrane, one of the sequelæ of which was the ascites of which the patient was cured at La Charité.

ART. VII.—*Case of Ligature of the Left Subclavian Artery within the Scalenus Muscle, for Aneurism.* By J. KEARNY RODGERS, M.D., Surgeon to the New York Hospital, and to the New York Eye Infirmary, &c., &c.

MICHAEL LARMAN, born in Germany, aged 42 years, was admitted under my care, into the New York Hospital, Sept. 13th, 1845, with aneurism of the left subclavian artery. The account he gives of it is as follows:—

"About four weeks ago, when carrying a basket of peaches (containing about a bushel) on his left shoulder, he was suddenly seized with a severe pain in the shoulder and arm, and was obliged to lay down the basket. On examining the part, he then, for the first time, observed a swelling above the clavicle, about the size of a pullet's egg. Since last winter, about February, he had suffered pain in the arm, and observed that it was occasionally swollen, but was not obliged to give up work."

On examination, a pulsating tumor can be seen above the left clavicle, about the size of a small hen's egg, rising beyond the bone about two inches; extending externally to the outer third of the clavicle, and internally, covered by the outer edge of the sterno-mastoid muscle. Pulsation was very distinct over the entire surface of the tumor. The cutaneous veins below the sternal end of the clavicle very much enlarged and their coats thickened. There were marks of cupping over the shoulder.

The patient complains of severe pain in the axilla, extending down the arm to the finger ends. He cannot sleep, and his general health has suffered from the want of rest, being obliged to walk his room at night on account of the severe pain; the left arm and hand are swollen, so as to interfere with the flexion of the fingers.

There was no perceptible difference in the pulse at the wrists. Its beat was 92, soft and full.

Treatment.—Low diet, and an anodyne at bed time.

Sept. 15th. The pain continuing, he was ordered to be bled to ℥x. Haust. anod.

Sept. 16th. Bleeding afforded some relief. Slept well last night; has less pain in the arm; pulse full and soft; tongue is slightly coated; bowels constipated. ℞. Pulv. Rhei gr. xv., calom. gr. v., M. Sumat æqua cras mane.

Sept. 17th. Ordered tinct. digital. gutt. xxx., ter in die.

Sept. 28th. Has continued the use of digitalis since last date without much benefit. Tumor is increasing in size. Pain last night was very severe; pulse 90, and full, but easily compressed. Fiat v.s. ad ℥xij. ℞. Tinct. opii gtt. lx hora somni.

A consultation of the surgeons being called, they, after a full discussion of the case, very kindly left it with me to decide whether the operation should be performed.

The tumor continued slowly and gradually to increase, and passed more under the mastoid muscle than on his admission, so as to give me some apprehension of trouble from it in the operation.

He was apprised of the fatal nature of the disease, and the dangers of an operation, but his sufferings were so great that he expressed his willingness to undergo whatever operation afforded the least prospect of relief from pain, and of restoration to health.

Having decided on tying the subclavian artery, I summoned my colleagues on the 14th of October, and the operation was performed in the theatre of the hospital at 1 P.M. of that day, in the presence of Drs. Mott and Stevens, consulting surgeons, of Drs. Cheesman, Post, Hoffman, Buck, and Watson, surgeons, and an assemblage of about three hundred physicians and students.

The patient was laid on a low bed, with his head and shoulders raised, and his face turned to the right side. The light from the dome shone directly on the part to be operated on.

An incision was made three inches and a half in length on the inner edge of the mastoid, terminating at the sternum, and dividing the integuments and platysma myoides. This was met by another extending along the sternal extremity of the clavicle, about two and a half inches. This last incision divided a plexus of varicose veins passing in the integuments, covering the clavicle to the subclavian. Free bleeding taking place from their cut and patulous extremities, it became necessary to check it by ligature.

The flap of integuments and platysma myoides was now dissected up, and the lower end of the mastoid laid bare; a director was passed under this muscle, and the sternal portion and half of the clavicular divided by the bistoury. This muscle was now turned up, and the sterno-hyoideus muscle, the omo-hyoideus, and the deep-seated jugular vein were seen covered by the fascia.

On turning up the mastoid, a portion of the aneurismal sac strongly pulsating was brought into view, overlapping about half the width of the scalenus, forming now the outer part of the track through which I was to pass, showing fearfully one of the dangers of the operation, which, from my previous examinations of the part, I had of course anticipated.

The fascia being divided by the handle of the scalpel and the fingers, I passed in contact with the deep jugular on its outer side to the inner edge of the scalenus anticus, intending, for the purpose of avoiding as much as possible all danger to the thoracic duct, to reach this muscle fully half an inch above the rib, rather than at its insertion. I now felt distinctly the phrenic nerve running down on the anterior surface of the scalenus, and was confident that I should be able to avoid any injury to it. Having attained the inner edge of the scalenus, by pressing downwards with the finger, I soon discovered the rib, and after some little search easily found the subclavian artery. By pressing it against the rib, all pulsation ceased in the tumor, and by removing the finger, pulsation returned.

I now felt that great care was necessary to detach the artery, and avoid danger to the pleura and thoracic duct. In accomplishing this part of the operation, I at first tried Sir Philip Crampton's instrument, but ascer-

taining that I could better carry the ligature around the artery and bring up its end, by the invention of Drs. Parrish, Hewson, and Hartshorne, of Philadelphia (long since given to the profession by them, and lately claimed by Mr. L'Estrange of Dublin), I accordingly adopted that instrument.

This part of the operation it will be imagined was not very readily accomplished. The great depth of the vessel (nearly the length of my forefinger), and narrowness of the wound, prevented a very easy management of instruments. The point was introduced under the artery, and soon directed upwards so as to avoid injury to the pleura. The needle carrying the ligature was now detached from the shaft of the instrument, and drawn upwards so as to include the artery. I readily tied the ligature, and tightened it with the forefingers in the bottom of the wound. All pulsation immediately ceased in the aneurism and the arteries of the extremity.

The patient complained of no pain or unusual feeling in the head, as might have been expected from so suddenly changing the current of so large a quantity of blood.

2 o'clock P.M.—Patient complains of chilliness; surface of the body cool to the touch; temperature of the left arm much below that of the right; pulse 115, small and feeble. Ordered warm brandy and water; bottles of warm water to the feet, and the left arm and shoulder to be enveloped in warm blankets. 5 P.M. Feels more comfortable; pulse 108, with some degree of fulness; temperature of the arm increased; complains of severe pain in the back and neck; is unable to lie down, and has his shoulders supported in a bed-chair. 10 P.M. Has slept two hours, and is now quite easy. Took of tinct. opii ℥i.

2d day. *Oct.* 15*th.*—7 A.M. Passed a comfortable night and slept well; has less pain in his back; temperature of left arm higher than that of right; pulse 120, soft and full; has taken no nourishment; to take barley water as his drink. 3 P.M. Is very comfortable; has no pain in his back; complains of slight pain in his head and neck; is inclined to sleep. 11 P.M. Patient restless; complains of pain in the wound and neck. ℞. Solut. sulph. morph. (Magendie's) gtt. xxv.

3d day. *Oct.* 16*th.*—7 A.M. Slept but little during the night; suffered severe pain in the neck and down the back; skin moist; temperature of both arms the same; pulse 112, soft and full; complains of thirst; tongue coated with a white fur; bowels not open since the operation; there is a slight erysipelatous redness at the edges of the wound. Ordered purgative enema; the inflamed part to be bathed with equal parts of spirits and water. 5 P.M. The patient refusing to allow the administration of an enema, a dose of castor oil was exhibited, which operated freely; expresses himself much relieved; has less pain in the neck; temperature of the left arm natural; skin rather dry; pulse 120, without much force; complains of thirst; erysipelas extending; the wash to be continued. ℞. Solut. sulph. morph. gtt. xxx., hora somni sumend.

4th day. *Oct.* 17*th.*—6 A.M. Passed a good night, slept till past midnight; is free from pain; skin warm and moist; pulse 98, soft and full. Diet: milk toast for breakfast, chicken broth for dinner. Continue the wash. 5 P.M. Erysipelas extending downward; has slight pain in the wound; pulse 120, soft and regular; temperature of the left arm same as that of the body; skin dry; v. s. ad ℥x.; solut. sulph. morph. gtt. xxv., hora somni.

5th day. *Oct.* 18*th.*—7 A.M. Passed a comfortable night; slept well; has no pain; general symptoms much improved; pulse 108 and soft, but not full; erysipelas fading; wound suppurating at the angle; diet as yesterday; continue wash. 5 P.M. Bowels moved spontaneously this morning; is free from pain; pulse 110, and easily compressed; skin moist; tongue slightly coated. ℞. Tinct. lupulin, ʒij., hora somni.

6th day. *Oct.* 19*th.*—6 A.M. Passed a restless night; was slightly delirious, but is more quiet this morning; pulse 120, quick and feeble; tongue coated; skin dry; complains of dryness of throat; erysipelas diminishing; wound suppurating; its sutures were removed; was allowed lemonade as a drink; diet as before; poultice to the wound. 5 P.M. Patient more comfortable; skin moist; pulse 118, with more volume; less thirst; poultice to be continued.

7th day. *Oct.* 20*th.*—6 A.M. Passed a comfortable night; slept until midnight; complains of the weight of the poultice; is free from pain; wound suppurating freely; pulse 120, small and easily compressed; tongue coated; skin moist; temperature of arms the same; has some difficulty in voiding urine, which he attributes to the attempt to administer an enema some days since; bowels moved yesterday; diet as before; poultice to wound. 5 P.M. Bowels moved to-day; feels very easy; solut. morph. gutt. xx., h. s.

8th day. *Oct.* 21*st.*—6 A.M. Slept from midnight till morning; is now quiet and easy; skin natural; no erysipelatous appearance, except on the edges of the wound; pulse 108, irregular in force, but not in frequency; tongue clean; appetite good. Ordered boiled chicken for dinner.

9th day. *Oct.* 22*d.*—Continues to improve; slept well; pulse 104, soft and regular; tongue slightly coated; skin moist; wound doing well, and suppurating freely; erysipelas subsided entirely. No change in treatment.

10th day. *Oct.* 23*d.*—6 A.M. Passed a good night, with the exception of an occasional inclination to cough; pulse 120, and regular, but without much force; skin dry; countenance slightly flushed; complains of thirst; has flashes of light before his eyes; pupil of left contracted; is without pain in the head; wound suppurating freely; drink, barley water; h. pulv. Dov., gr. x. 5 P.M. Feels much better; skin moist; has less thirst; pulse 108, soft and full; less cough; bowels have moved twice spontaneously; h. tinct. hyosciam. ʒj., hora somni.

11th day. *Oct.* 24*th.*—7 A.M. Slept well last night; was not disturbed by the cough; pulse 102, and without much force; skin moist; tongue clean; countenance cheerful; wound suppurating freely; tumor diminishing; appetite good; diet, same as yesterday, with the addition of an egg for breakfast. 5 P.M. The recumbent position is very irksome, and it is difficult to keep him in bed, from which he has frequently risen. Feels very well; pulse 96, soft and full, is easily compressed; skin natural; tongue clean. The contraction of left pupil still continues, and there is slight ptosis of left eye-lid; has an occasional burning sensation in the left arm, which is relieved by pressure on the elbow; bowels moved once to-day, but not freely; has no difficulty in micturition; wound looks well; discharge diminishing; h. solut. sulph. morph., gutt. x., hora somni.

12th day. *Oct.* 25*th.*—6 A.M. Slept well last night; pulse 94, full, but easily compressed; skin moist; tongue clean; wound granulating;

appetite good; diet, same as yesterday. 5 P.M. Wound was dressed this morning with adhesive plaster and dry lint; has occasional pain over the left eye; ptosis and contraction of pupil continues; pulse 92, soft and full; skin moist; no pain in left arm.

13th day. *Oct. 26th.*—2 A.M. The patient, on changing his position from the right side to his back, felt a trickling down his chest of what he supposed was matter, but which the nurse ascertained to be blood. The house surgeon was immediately called, and controlled the hemorrhage by filling the wound with layers of dry hard sponge, placing a compress over this, and securing the whole by a bandage. About twenty ounces of blood were lost. 9 A.M. There has been no bleeding since 2 o'clock. The patient has a sensation of faintness, and is alarmed at his situation. Pulse 128, small and feeble; skin dry and cool; countenance pale and anxious; ptosis and irregular contraction of the left pupil still continue, but the pain in the head has subsided; has an inclination to sleep, but the fear of bleeding prevents its indulgence. Has taken a small quantity of milk, and desires more solid food; thirst not very great. Ordered oyster soup. 12 o'clock, M. After patient had been raised for the purpose of drinking, the hemorrhage again occurred. On removing the bandage and compresses, which were saturated with blood, the hemorrhage continued in distinct jets from the sponge—another piece was placed over the whole, and firm pressure ordered to be kept up by assistants, which controlled the bleeding. The ligature still remains in the wound. 5 P.M. There has been no recurrence of hemorrhage; reaction has taken place; pulse 140, sharp and quick; skin hot and dry; countenance flushed and anxious; has pain in the forehead; complains of great thirst; drinks freely of cold water; pressure continued.

14th day. *Oct. 27th.*—6 A.M. There has been no bleeding during the night; pressure has been firmly made over the wound; the blood has passed under the integuments of the neck in so great quantity that there is a decided bulging of the skin on the left side, extending to the back of the shoulder; pulse 140 and very feeble; skin clammy; countenance pale and anxious; right pupil very much dilated, left contracted; ptosis of left increased; complains of pain in swallowing; thirst very great; has taken very little nourishment; ordered chicken soup. 5 P.M. Patient's strength gradually failing; no external hemorrhage; pulse 140, and feeble; general symptoms but little changed since morning.

15th day. *Oct. 28th.*—6 A.M. Patient has been very restless during the night, but slept at intervals; complains of the pain caused by pressure on the wound; has occasionally drunk lemonade; during the night there was some disposition to cough, which was twice followed by oozing; pulse 142, and very feeble; countenance of a livid hue; right pupil very much dilated; ptosis and contraction of left pupil continue; swelling on side and back of the neck very prominent; skin cold and clammy; mouth parched, is unable to swallow anything but cold water. On removing the outer sponge there is a firm clot seen which for a time controls the bleeding, but the least effort causes a free gush of blood; gentle pressure to be continued. 1 P.M. The clot beneath the integuments causes so much pressure on the œsophagus as nearly to prevent deglutition; the tendency to external hemorrhage is less, and the external clot firm; there is danger that the blood effused may press on the larynx sufficiently to prevent respiration, and the pressure was accordingly discontinued; oozing continues. 5 P.M. Patient dying; no external hemorrhage. 5¼. Died.

Post-mortem Examination, eighteen hours after Death.—The wound was filled with coagula and sponge, which had been introduced for the purpose of making pressure. The blood is already in a state of partial decomposition. The dissection was carefully performed, exposing the different layers of muscles. The lower incisions made at the operation were found to include three-fourths of the mastoid, leaving a small portion of the clavicular portion undivided. Below this the aneurismal sac and the scalenus anticus formed the outer and posterior wall of the wound. The inner wall was formed of condensed cellular tissue covering the carotid artery, jugular vein, thoracic duct, and the edges of the thyroid muscle. At the bottom was the subclavian artery, completely divided by the ligature, which was found free in the coagula. The cellular tissue of all the parts around the wound was condensed by adhesive inflammation, rendering the dissection exceedingly tedious and difficult. The jugular vein, which skirted the inner wall of the wound, was obliterated and filled with fibrinous coagula. Opposite the track of the ligature the vein was contracted to a cord, and impervious as far as its junction with the subclavian. The vena innominata and subclavian were normal. The pleura at the bottom of the wound presented a large irregular lacerated opening, communicating from the wound with the left pleural cavity, which was filled with coagulated blood. This formed one large uniform coagulum, and had every appearance of being of rapid and recent formation; the membrane around these was thickened. On exposing and tracing the subclavian artery, it was found that the ligature had been applied about one and a quarter inches from its origin at the aorta, and immediately at the root of the vertebral, on its cardiac side. The artery had been completely divided by the ligature, which as mentioned above was found loose in the wound. The stump of the subclavian, between the aorta and ligature, presented the appearance of a round solid cord, about an inch and a quarter long, and impervious to liquids or air. The external coat of the stump was thickened and adherent near the ligature to the surrounding tissues, by adhesive inflammation. On laying open the vessel longitudinally it was found that a firm fibrinous coagulum occupied the vessel, and was adherent firmly to its inner coat for three quarters of an inch; near the aorta, the coagulum was softer. The coats of the vessel were moderately thickened, and presenting a small patch of atheromatous deposit about the third of an inch from the tied end. Around this deposit the adhesion seemed as perfect as at any other part. Beyond, the ligature presented a different appearance. No plug other than a soft coagulum of blood occupied its cavity, and it presented much less evidence of adhesive inflammatory process in its coats. The vertebral was given off immediately at the point of ligature, and was open, containing a thin blood coagulum like the one in the subclavian. These were drawn out with ease, and evidently had formed during the last moments of life. About one third of an inch from the vertebral came off the thyroid axis, and nearly opposite the vertebral was the internal mammary. These vessels were all patulous and healthy. About half an inch from the thyroid axis commenced the dilatation of the artery to form the aneurismal sac. This tumor was about the size of a small orange, and had involved in its growth part of the scalenus anticus, the cervical nerves going to form the cervical plexus, the surrounding cellular tissue, and the glands. The aneurism was completely blocked up with coagula, and the axillary artery which emerged from its distal side was plugged with a

fibrinous clot exactly similar to the one in the stump of the subclavian, though perhaps not so perfect. It appeared sufficiently so, however, to obliterate entirely the calibre of the vessel. The plug extended some distance down the axillary artery. The thoracic duct, which had been injected with wax from the abdomen, was found uninjured. The aorta was thickened, and its coats irregular from a considerable deposit of atheromatous matter in its tissues. The heart was somewhat larger than natural, but apparently sound. The other organs were not examined, as the friends insisted on an early removal of the body for burial.

Although a decided majority of the consultation agreed as to the propriety of the operation of securing the artery for aneurism, still, as my colleagues kindly left it with me to decide whether it should be undertaken, I felt it incumbent on me to investigate the subject with great care, and accordingly gave it my most sedulous attention. I was the more anxious, because, in the only case in which the attempt had been made by Sir Astley Cooper, in 1809, that eminent surgeon failed of securing the vessel, and is said to have entertained apprehensions that he had wounded the thoracic duct.

I had always considered it as a perfectly justifiable operation, and one that a careful surgeon conversant with anatomy could accomplish, if the tumor were of moderate size.

The want of success in the four or five operations on the right subclavian in its first stage did not discourage me, nor did they alter my opinion. The difference in the anatomy of the right and left arteries was so very great, that I did not consider it fair to argue that a similar result was to follow on the left side. The greater depth of the left, indeed, rendered the operation more formidable, but if accomplished, not less likely to succeed.

The point where the ligature must necessarily be applied on the right side is but a quarter or at most half an inch from the innominata and the coming off of the carotid; so that it could scarcely be expected that a coagulum would form sufficiently firm to adhere to the vessel, and resist the force of the heart's action. Besides, too, the greater force of the circulation on the right side was additionally unfavorable to success on that vessel, and, therefore, is an additional reason for distrusting an argument drawn from a parallel between the two.

In examining anatomical and surgical authorities I found the opinion prevalent among almost all British authors that the operation on the left side was "impracticable."

Colles, the eminent Irish surgeon who first tied the right subclavian in its first stage, says:—

"This operation, difficult on the right, must be deemed impracticable on the left subclavian. For the great depth from the surface at which this vessel is placed—the direct course which it runs in ascending to the top of the pleura—the sudden descent which it makes from this to sink under the protection of the clavicle, and the danger of including in the same ligature the eighth pair of nerves, the internal jugular vein or the carotid, which all run close to, and nearly parallel with this artery; these all constitute such a combination of difficulties as must deter the most enterprising surgeon from undertaking this operation on the left side."—*Edinburgh Med. and Surg. Journal, Jan.* 7, 1815, *p.* 23.

Harrison,* Flood,† Guthrie,‡ and Quain,§ all coincide in this opinion.

The opinions of those eminent anatomists and surgeons being so decidedly against the *possibility* of the operation, it was only left for me to examine with great care the surgical anatomy of this vessel.

Having had the thoracic duct injected with wax, I repeatedly dissected the parts concerned, and operated in every way that suggested itself to me as likely to present any advantages. My opinion of its feasibility was thus confirmed, and having never entertained any doubts of its propriety, I accordingly undertook it.

I regret, indeed, deeply, the death of my patient, but the appearances presented on examination after death, have only strengthened the opinion I had previously formed, and have encouraged me to undertake it with some slight variations, should another case ever present itself.

It has often happened with important operations that many of the first cases have been unsuccessful, while the carefully noted observations made on dissection have led to different modes of operating, and more uniform success.

Previously to the performance of this operation many entertained doubts whether the force of the circulation so near the heart in so large a vessel would not prevent the formation of a coagulum, and of course interfere with the obliteration of the vessel.

These doubts have now been removed, and I consider that all reasonable objections fall with them, except those arising from the anatomy.

Danger to the thoracic duct and pleura are in my opinion the most serious of these, for, with ordinary coolness and care, there will be little danger of including the pneumogastric and phrenic nerves, or carotid artery, in the ligature. The veins may be lacerated by great roughness, but can scarcely be included.

The thoracic duct, I think, can almost always be avoided by reaching the inner edge of the scalenus half or three quarters of an inch above its insertion, and then pressing the finger down towards the rib. The duct is thus kept out of the way of laceration by the finger, and afterwards by the aneurismal needle. I am aware that this duct varies in its course, but this direction I am confident will usually secure its safety. By adopting it in the many times I operated and dissected the parts in the dead body, it was uninjured.

The artery lies in contact with the pleura, the laceration of which might be attended with very distressing and dangerous consequences. A careful introduction of the aneurismal needle, and soon turning up its point, will usually secure the safety of this membrane. In none of my operations on the dead body, where it was performed in this way, was it injured.

The hemorrhage in this case came from the distal end of the artery, and the very free and direct anastomosis of the internal carotid at the base of the brain with the vertebral, induce me to think that it was the latter vessel which transmitted the blood. Some indeed may have come through the thyroid axis, but I consider the former mode more direct.

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* Harrison on the Anatomy of the Arteries. Dublin: 1833. Vol. i., p. 125.

† Flood. The Surgical Anatomy of the Arteries. London: 1839. P. 84.

‡ C. J. Guthrie on the Diseases and Injuries of the Arteries, &c. London: 1830. P. 396.

§ Quain's Anatomy, 3d edition. London. P. 492.

Should this operation be repeated, I would suggest the securing of the vertebral, and if possible the thyroid axis, by ligature. The difficulties are indeed thus increased, but not insurmountable.

I present this case to the Profession with the confident hope that they will give it their approval. I do not covet the empty honor of performing for the first time, be it ever so skilfully, any operation, however bold and difficult, but of doing that, which, though once unsuccessful, will, from the knowledge thence derived, enable us to enlarge our sphere of usefulness, and be the means of preserving human life.

My thanks are due to my talented pupil, Dr. John J. Crane, the House Surgeon, for his promptness in attending to all my directions in this case, and to my friend, Dr. Markoe, Curator of the Museum, for his skilful dissection and preparation of the parts.

ART. VIII.—*Reply to Dr. Carnochan's claim to priority in the Division of the Masseter Muscle.* By JOHN W. SCHMIDT, JR., M.D., New York.

To Charles A. Lee, M.D., &c.

SIR,—I am reluctantly compelled in self-defence to reply to a communication by Dr. John Murray Carnochan, which has appeared in the "New York Journal of Medicine," for January, 1846. I am the more averse to this duty I owe myself, having been for a number of years on the most friendly terms with the author of this article, and have always been among the first to award to this gentleman any credit due him, and as I witnessed his operation, the omission on my part of giving a proper notice in my account of the division of the masseter muscle would have been highly censurable; but before publishing my case, I examined every authority, and consulted a mutual friend, Dr. C. A. Porter, who witnessed and assisted in both operations, and he decided that I was the first to divide this muscle. Dr. Mott, who also assisted me in my operation, did me the honor publicly to announce it to his class, as the first operation of the kind he had seen or heard of, and if I mistake not, Dr. Carnochan was present at this announcement. My case was also published before Dr. C. left for Europe.

I would now ask, why were not his claims made known at this time? I will answer; Dr. Carnochan's case terminated unfortunately, and it was my belief that he had intentionally omitted its publication.

It is not my wish that any blame should be attached to Dr. C. on this account, as from the nature of the deformity no other result could have been expected, and not one of the many plans since proposed and enumerated in the heading of Dr. C.'s communication was in any way practicable.

If the Doctor was the first to suggest the division of the masseter muscle, I was certainly the first to practise its entire division, and if I am not greatly mistaken, was also the first who proposed the possibility of an artificial joint after the accidental fracture of the jaw in the use of the lever; for that, however, I do not claim any credit.

Again, from Dr. C.'s own statement it will be seen that he did not divide the muscle subcutaneously, and at any rate it was an entirely different procedure from the one practised by me—an account of which

can be seen in the first volume of Velpeau's Surgery, translated by Drs. Mott and Townsend.

I cannot think that any misrepresentation is intended by Dr. Carnochan, but from the lapse of time which has occurred, the particulars of the case must have escaped his recollection. Before writing this I have refreshed my memory by a visit to Dr. C.'s patient, who, I am sorry to say, has not been in the least benefited by the operation, and confirms me the more strongly in the belief that the masseter was not divided.

I cannot but add my conviction that Dr. C. has taken to himself more credit than the merit of the case deserves, and especially as he disclaims any regard to priority.

My attention has been within a few days directed to a case published in the "New York Journal of Medicine," for 1840, where it will be seen that Dr. G. Buck divided a portion of the masseter in August, 1839. I also add a correspondence between Dr. Porter and myself, in relation to the above facts :—

New York, 13th January, 1846.

Dear Sir :—You witnessed and assisted Dr. Carnochan in a case of immobility of the jaw, in a little girl some years since. Will you do me the favor to give me your views, as far as you remember, with regard to the division of the masseter muscle, and the fracture which occurred in the attempt to open the mouth? Very truly yours,

J. W. Schmidt, Jr.

Charles A. Porter, M.D., Albany.

Albany, Friday, January 16th, 1846.

Dear Sir :—In reply to your communication of January 13th, received this day, I comply with your request; and give you my views of an operation by Dr. Carnochan for immobility of the jaw. I have not read Dr. C.'s account of the case, which you informed me is published in the New York Journal for January, 1846. I am glad that I have not read it, as I cannot with any justice be suspected of appearing as an interested witness. Certain I am that I have only one wish. It is to subserve truth. I stated at the time,—I cannot, I will not shrink from the statement now,—it was my decided opinion that the parts were such a mass of disease, it would defy even Dr. C., with all his knowledge of anatomy—no one will question his attainment in that department—to tell what was and what was not the masseter muscle. I did not then, I do not now suppose that he divided the masseter muscle; I certainly cannot think that he did it with premeditation or design. I stated then, I repeat now, that the jaw was fractured accidentally. I should feel deep regret if I supposed this statement could place me in an attitude unfriendly to Dr. Carnochan. I entertain for him no other than most friendly feelings. I have not altered my opinion, that to yourself belongs the credit of having first and successfully divided the masseter muscle.

Very respectfully your friend,

Charles A. Porter.

J. W. Schmidt, Jr., M.D.

ART. IX.—*Menstruation, its True Nature and Office, with a Review of the Evidence of its Vesicular Origin, with Illustrative Cases.* By SAMUEL S. PURPLE, M.D., of New York.

INTERESTING and many are the facts and observations which, within the last few years, have been presented to the profession, upon the history and phenomena of menstruation. The theory of Power—the researches of Girdwood, Jones, Paterson, and Lee (London); Gendrin, Raciborski, and Boismont (Paris); Bischoff (Leipsic); Négrier (Angers), and of many others who are devoted to the cause of science, and improvement of sound physiology, are well worth the perusal of every member of the profession. Dr. Paget, in a "Report on the Progress of Human Anatomy and Physiology, in the year 1842–3,"* has given an excellent summary of the then existing facts relating to this subject, corroborative of Dr. Power's theory. It is not our intention to go into the minute detail of all that has been written in reference to the elucidation of the nature of this function of the female economy. It will, however, be our aim to give, in as concise a manner as possible, a summary account of the facts relating to this subject, with such conclusions as we may be able legitimately to draw from them; and in order to do this successfully, it becomes necessary to inquire first, What is the true nature of the menstrual fluid?

All the more modern elementary treatises on Physiology and Midwifery, agree in describing the menstrual fluid "to consist of blood deprived of its fibrin, the fluid being composed of serum in which red corpuscles are suspended."† This opinion has gained universal currency upon the authority of Brande and Lavagna; at least it would seem to be so, as it does not appear that any such opinions were held previous to the publishing of their views. Mauriceau‡ says that the menstrual fluid "commonly differs in no way from that which continues in a woman's body." J. Hunter terms menstruation, "a natural evacuation of blood * * * thrown off from the common mass by an action of the vessels of the uterus, similar to that of secretion; by which action the blood loses the principle of coagulation, and I suppose life."§

The presence of the unaltered globules of the blood, in the menstrual fluid, is expressly stated by Hunter, who says—"The red globules, however, are not dissolved, they retain their figure."‖ The truth of this remark is fully confirmed by the more recent observations of Dr. Donné,¶ made in the true spirit of inquiry. Donné submitted to careful microscopic examination, healthy menstrual blood obtained from two *healthy* females, and found it to contain, 1st. Common blood globules of the *proper character and form;* 2d. Mucus from the vagina united with epithelial scales; and 3d. Globules of mucus from the cervix uteri. Professor Shultz (Berlin) examined a teaspoonful of menstrual blood, taken from a healthy female, with the like result as to the globules. He describes the globules as separating and falling to the bottom of the fluid, where they appeared "to the naked eye a cheese-like coagulum; observed

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* Brit. and For. Med. Rev., vol. xvii., 1844.

† Carpenter's Principles of Human Physiology, § 742, Müller's Elements of Physiology, Bostock's Elementary System, Majendie, Elliotson, Mayo, &c., &c.

‡ Meckel's Archives, 1818.

§ Hunter on the Blood, 2d Amer. edit., 1823, p. 67. ‖ Ibid., p. 45.

¶ M. Brierre de Boismont, "De la Menstruation," Paris, 1842, where the analyses of a number of observers are given in full with remarks.

through the microscope, this apparent coagulum was found to be composed of perfect vesicles, heaped together, yet isolated, and not adherent to each other, as easily happens to the vesicles of living arterial and venous blood."*

From the foregoing remarks, it will be seen that the menstrual fluid consists of serum and the natural corpuscles of the blood. But is the fibrin absent? Let us see. From the result of the numerous experiments made to ascertain the composition of this fluid, we are compelled to believe that there is also present a full quantity of fibrin. M. Bouchardat,† by means of a speculum fitted around the cervix uteri, collected in a pure state a quantity of menstrual blood, and, upon analysing it, found that it was composed of the ordinary ingredients of the blood, combined in arterial proportions; thus confirming the previous observations of Mr. Denis. The interesting researches of J. Müller also show "a full quantity of fibrin." Dr. Dewees,‡ in speaking of the opinion that this fluid contains no fibrin, and hence does not coagulate, says, "It is more probable that this substance (fibrin) has been deprived of the power of coagulating, by being subjected to the influence of the vessels of the secreting portion of the uterus. This opinion is strengthened by recurring to the fact, that the coagulating lymph always accompanies the red globules, wherever the latter may be found." Indeed, we should expect *a priori* the presence of fibrin, for we know of no process or secretion by which the fibrin may be retained, and yet the unchanged globules of the blood be allowed freely to pass. How then are we to account for the want of power to coagulate, which this fluid possesses? (For the occasional instances of coagula, found during deranged menstruation, must be considered exceptions to the general rule; and as J. Hunter says, "if that discharge (the menstrual) is natural and healthy, the blood does not coagulate; but, on the other hand, if the extravasation is not a healthy one, the blood coagulates, as it is extravasated, and comes away in clots."§) Before answering this question, we shall give some of the views which have been put forth to account for this occurrence. Hunter supposed it to depend upon "a natural action of the living body, which *destroys the life of the blood* in the act of extravasation."‖ And again, "the blood dies (in this species of ecchymosis) in the act of extravasation, in the *same manner* as the blood of the menstrual discharge, whenever it is effused."¶

It is possible that the opinion of Dr. Dewees (before cited) may have been made up from a review of Mr. Hunter's, as it appears to be but a slight extension of the same views.

M. Retzius believes it to be owing to the presence of phosphoric and lactic acids developed in the uterine vessels. Now it appears to us, and we think we shall be able to show, that Mr. Hunter and M. Retzius have both labored under a mistake in the location of the change. Each places the change in the uterine capillaries: the former supposes an action or property inherent in the vessels to exist, by which the death of the blood is produced in the act of extravasation; and the latter, advancing a step farther, supposes the development or production of an acid, by which a change is effected in the vessels as the process of extravasation goes on.

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* Boismont, edit. cit.
† Ibid.
‡ Treat. on Diseases of Females, Philadelphia, 1840, p. 97.
§ Principles of Surgery, Amer. edit., 1839, p. 35.
‖ Ibid.
¶ Hunter on the Blood, edit. cit., p. 161

Now as to the production of phosphoric or lactic acid, it may be said that in the present state of our knowledge no such acids are known to be evolved from the mucous membrane of the uterus or vagina in a healthy state.

When an acid is evolved, excoriation of the parts over which it passes is the result, constituting that form of leucorrhœa mentioned by Thomson, Jones, and Ashwell, requiring alkaline injections. Again, healthy menstrual fluid is alkaline; and again, "healthy mucus from the uterus or vagina," says Prof. Draper, "does not contain an acid." Now, were it fully proved that one or both of these, or any other free acid is present or disengaged from this surface, then any further explanation would be useless, for it is well known that acids produce this effect upon healthy blood,—but as we have shown that the contrary is the case, we are compelled to look further for an explanation or answer to our question.

From repeated experiments and observations it has been found that *ordinary blood mixed with mucus* does not coagulate, and also that a *slow secretion or effusion of blood from a mucous surface does not coagulate.* May we not infer that it is the presence of mucus that prevents the coagulation? Indeed, with these facts before us, can we hesitate for a moment to declare that the secretion and blending of mucus with the extravasated menstrual fluid *is the sole and only cause of the non-coagulation of the menstrual blood* (for we believe it to differ in no way in the act of extravasation from ordinary blood which remains in the body)?

But it may be asked, in what manner is this extravasation of blood brought about, or in other words, what is the cause of the menstrual discharge? In all spontaneous hemorrhages the proximate cause is local hyperæmia, or congestion of the capillaries of the part from which the flow takes place. Now, if what we have said be true, if the menstrual fluid be simply a sanguineous exhalation, and if local hyperæmia be the proximate cause, should we not expect to find this congestion after death? Let us see what the facts in reference to this state are. In all cases where death has taken place during the catamenial flow, the uterus and its appendages have been found congested. Increased vascularity is a characteristic attendant. If during the menstrual flow an examination be made with the speculum, the vagina will be found unusually vascular, the *cervix uteri* swollen and red, the *os tincæ* nearly closed. M. Boismont* "found the *cervix uteri* hot, soft, and tumid to the touch, and on examination with the speculum the *vagina* unusually vascular, the *cervix uteri* enlarged and of a bright red color, differing from its usual pink violet hue—and hence considers it in a state of engorgement."

Dr. Blundell† had an opportunity of observing this in a severe case of *procidentia.* He says, "the increase took place regularly, and the whole womb might distinctly be felt to throb, and hence we may reasonably infer that whatever, month by month, may be the cause of the topical increase of the vascular action in the menstruating vessels, it is the determination of blood on the uterus, produced by this topical excitement of the vessels that gives rise to the discharge." In a recent case where death took place during the catamenial flow (which will be referred to more minutely hereafter), the uterus, one ovary, and its corresponding fallopian tube were found in a high state of engorgement. It may be safely stated, then, that *local hyperæmia of the uterus and its appendages is the proximate cause of menstruation.*

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*Edit. cit. † Diseases of the Uterus—Waller's Lec., Philadelphia, 1841.

If, then, this be the proximate, it will be asked what is the remote or exciting cause? Here it will be necessary to treat more minutely of what we hastily referred to at the commencement of this paper, viz., the observations of Cruikshank,* Power,† Lee,‡ Jones,§ Girdwood,‖ and many other English writers—Gendrin,¶ Bischoff, Raciborski,** Negrier,†† Boismont,‡‡ and a number of other French and German writers, who have done and said much upon this subject, and whose labors prove beyond a reasonable doubt that it is *the periodical maturation and rupture of a graaffian vesicle, with the escape of an ovum* from the ovary into the fallopian tube, which is "washed away by the menstrual blood."

It would augment too much the size of this paper were we to give in full the cases of the writers just referred to; we cannot, however, refrain from giving some of them, with the conclusions drawn therefrom.

It is impossible to say with whom the idea originated that the catamenia were in some way connected with the ovaries—for we find it spoken of by Kirkringius as early as 1672, who believed that ova were discharged with the menstrual fluid, at the first appearance of this function at least. He says, "Aliquando fœminæ dejiciunt hæc ova imprimis temporæ menstruorum." Friend, in his Emmenalogia, alludes to it as a then existing belief. The first case tending to prove or establish this opinion, so far as we have been able to ascertain, is that recorded by Pott,§§ in which he extirpated the ovaries in an operation for inguinal hernia; *the woman, who before had been regular, ceased to menstruate.* Since that time a number of instances have been observed in which the ovaries being absent, this function was not performed. In all the cases on record where these organs were removed, or found absent, the catamenia were also absent, although all the other organs of generation were perfect. The next important case bearing upon this subject was that of Mr. Cruikshank, published in the Transactions of the Royal Society for 1797. "I have (says he) in my possession the uterus and ovaries of a young woman who died with the menses upon her. The external membrane of the ovaries was burst at one place, from whence I suspect an ovum escaped, descended through the tube into the uterus, and was washed away by the menstrual fluid." This case of Mr. Cruikshank's, with the observations of Kirkringius, seems to have been entirely disregarded by writers and observers, as we find nothing farther on this subject until the year 1821 (except the case of Mr. Pears),‖‖ when Mr. Power put forth his theory of menstruation, which supposes it to depend upon the maturation and rupture of a graaffian vesicle with the escape of an ovum. Whether Mr. Power had his eye upon Mr. Cruikshank's case or not, we are unable to

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* Phil. Trans. for 1797.

† Essays on the Female Economy. London, 1821.

‡ Cyc. Prac. Med., Art. Ovary. London, 1834. Also Lectures on Mid., Am. Edit. Philadelphia, 1844.

§ Practical Observations on Diseases of Women. London, 1839.

‖ London Lancet, 1843.

¶ Gendrin, Traité Phil. de Med. Prac. Paris, 1839.

** Gaz. des Hôspitaux, tome 4. 1842.

†† Res. Ana. et Phys. sur les Ovaires, &c. Paris, 1840.

‡‡ De la Menstruation. Paris, 1842.

§§ Pott's Works, case 24, p. 329.

‖‖ Trans. of the Royal Society for 1805.

say; if he did not, it is a beautiful illustration of the accidental approach of theory to the truth when preceding fact.

Having given the cases of Pott and Cruikshank with the theory of Power, we come now to the remaining and more recent observations of the French and English writers. And here we find existing the spirit of contention, that which has done more than any one thing else to hinder the progress of science, and the respective writers of each nation engaged in a warm controversy as to the priority of discovery. On this subject we shall have nothing to say, leaving it entirely to themselves to settle this dispute.

In 1833, Mr. R. Lee, in the Cyclopœdia of Practical Medicine, vol. iii., art. "Disease of the Ovaries," reported four cases in which he had examined the uterus and ovaries of females dying whilst menstruating. His first case is dated March 11th, 1831; his words are, "at one point a small circular opening with thin irregular edges was observed in the peritoneal coat, which led to a cavity of no great depth in the ovarium * * * * to an extent of three or four lines; the surface of the ovary was of a bright red color * * * * both fallopian tubes were uniformly red and swollen, and their cavities were filled with menstrual fluid."

In the autumn of the same year he examined a second case, a young female æt. 20 years, who died suddenly of acute inflammation of the lungs. The right ovary "at one part—the peritoneal coat to a small extent had been removed. The edges of the opening were extremely thin and irregular."

His third case was sent him by Sir Astley Cooper, in July, 1832; it was the ovary of a young female who died of cholera. On examination, "at one point there was an irregular opening in the peritoneal coat, through which a slender coagulum of blood was suspended. This led to a cavity in the ovary filled with a firm coagulum." In the autumn of this year (1832) Mr. Girdwood sent him the uterus and ovaries of a female who died of scarlet fever. The menstrual flux made its appearance (according to Mr. G.) "*six hours before dissolution.*" "On the left ovary there was an oval cavity large enough to admit a tare, and no doubt left by the recent escape of an ovule; its margin was unequal and floccular, and as well as the walls throughout of a deep red color."

In his lectures on midwifery, Mr. Lee relates a fifth case, which was seen by Mr. Shaw in the Middlesex Hospital, May 31, 1841. The following was the appearance of the right ovarium: "In the right ovarium the appearance was presented of one of the graaffian vesicles having been ruptured. A part of the surface of the size of a four-penny piece was distinguished by a dark stain upon it; and here the peritoneal coat was slightly elevated, and the rugged edges towards the centre of the stained spot were of a particularly black color." From the foregoing it will be seen that there came under the immediate inspection of Mr. Lee four cases; his fifth was related to him by Mr. Shaw.

Mr. Girdwood's first and only case, so far as we have been able to ascertain, is the one already related by Mr. Lee. All his other cases go to prove or establish the views first expressed by him, viz., that the number of cicatrices correspond to the number of times the female has menstruated.

M. Gendrin, in 1839, published five cases which had been observed by him of females who died during the catamenial flows.

In the first, the left ovary was found congested; on the surface, near

the middle, was seen an aperture about a line in diameter, with an irregular margin leading to a cavity as large as a hemp seed; its walls were vascular.

In his second case was seen a small circular opening, leading to a cavity two lines in diameter; the walls were of a bright red color. In the remaining three cases the same appearances were observed—from all of which he concludes a graaffian vesicle had been ruptured, and an ovum escaped.

M. Negrier has made nearly the same statement in the account given of the cases he examined.

M. Raciborski has also given an account of his examination in four cases, in each of which he found a rupture in the peritoneal coat, with thin, irregular edges, and the opening leading to a cavity, from which he concludes that an ovum had been recently discharged from the ovary.

Prof. Bischoff has also examined four, and in each he found a rupture of the peritoneal coat, leading to a cavity filled with coagulated blood; his conclusions are the same as those of M. Raciborski.

M. Boismont has come to the same conclusions from the observations he has made. There is a case reported by Dr. Post, in the New York Med. Gaz. for 1842, with remarks by Prof. Gillman, and an imperfect account of the cases on record, up to that time—where the female is said to have "menstruated within a week of her death;" but Dr. Post gives only a general statement of the case. It is not mentioned whether an opening was found (if there was one) in the peritoneal coat of the ovary.

Mr. Ritchie, in the London Med. Gaz. for 1844, gives an account of three cases. One menstruated six days previous to death, and the other two ten previous to death. In each of the three cases the irregular opening was present, leading to a cavity filled with coagula. And yet he adds at the close, "no trace of a vesicle which had been affected by menstruation was perceptible." It is from such cases as these that Mr. Ritchie "has set forth a copious proof, in his opinion entirely subversive of the recent hypothesis of the vesicular origin of menstruation."*

It is impossible for me to say what evidence Mr. Ritchie could wish if that related by him, and in the foregoing cases, is not sufficient to prove the truth of what he assumes to be a hypothesis.

In a case examined October 24th, 1845, by Dr. W. C. Parker and myself, in the presence of Prof. Gillman and Dr. Rawson, the woman died from apoplexy, and was menstruating at the time. The following were the appearances, as I find them recorded in my notes, taken at the time.

The left ovary, with its corresponding fallopian tube, much congested; the peritoneal coat on its anterior and superior surface was of a bluish purple color; near the centre of this portion were seen two points which appeared as if a rupture in the peritoneal coat had taken place; these points were filled with coagula; on removing this it was found that it filled two cicatrices, of which there were a number on various parts of the ovaries; between these two points a third was seen, where a rupture in the peritoneal coat had taken place; it was of a V shape, and irregular; the loose end of which turned up; the opening was filled with coagula. On laying open the ovary, a small cavity was found, about the size of a wheat seed, filled with coagula, nearly deprived of its red glo-

* Edinburgh and London Monthly Journal of Med. Science, Aug., 1845.

bules; the walls of the cavity were vascular; the fallopian tube was filled with menstrual blood; the cervix uteri injected, and appeared swollen, and the villa of the inner surface elongated and covered with the menstrual fluid; at one extremity of the ovary was observed an enlargement, which, when laid open, proved to be a well-marked *corpus luteum*, about four lines in breadth, and five in length, containing a cavity. Upon tracing out the history of this case, it was found that she had miscarried nine weeks previous.

A very interesting case was published by Mr. Jones, in his work on the Diseases of Females. (London, 1839.) In prefacing it he says, "It has occasionally happened that at the *post-mortem* examination of a woman who has died during the existence of the catamenial effusion, an ovum has been found partly within the expanded extremity of the fallopian tube, and partly detached from the ovary; whilst the ovary has exhibited signs of congestion, and that portion of its membrane which surrounds the ovum has borne recent traces of a rupture. Some fourteen months since this condition was witnessed by myself and Mr. Lovegrove, of Upper Baker st., in the left ovary of a woman who died of congestion of the brain, on the first day of the catamenial effusion, in whom the hymen was perfect, and whose ovaries exhibited six or seven cicatrices. The same appearance has been reported by my late colleague, Dr. Richmond."

It is now very generally admitted that the graaffian vesicles proceed from the interior to the circumference of the ovaria in their development, and that they are not fully developed until they reach the surface of the ovaria (which takes place at the age of puberty, or at the first appearance of the catamenia). This opinion may be considered to have been almost proved to a demonstration by the observations of Girdwood and Ritchie, who have both examined the ovaries of the human female from infancy or birth up to puberty.

The cicatrices of which we have spoken, as being present in some of the cases, are found in no instance before the appearance of menstruation—at least such appears to be the result of the observations of the writer just referred to. And such also is the result of our own observations. In cases of aged females who have ceased menstruating, the ovaries present a shrivelled appearance, and upon minute inspection are found covered with these scars or cicatrices.

In a case examined by Dr. W. C. Parker and myself, of a woman, æt. 60 years, the ovaries were found very much shrivelled and wasted, and the cicatrices could be seen crossing each other at various points.

If then, these be the appearances presented during and after menstruation, it may be asked, what is the final nature of the menstrual flow? or what important service does it perform in the human economy? or in other words what important object is intended by nature to be accomplished by it? From a review of the cases related in this paper, we are disposed to regard the answer to the question as not difficult, but, on the contrary, as easy, and coming from well established facts.

In order to understand more fully the answer we shall give to the inquiry, it will be necessary to give a summary view of what takes place in the formation of the *membrana decidua* after impregnation takes place; after which we can return to the consideration of the true nature of menstruation.

In the more modern elementary treatises on physiology and midwifery it is generally conceded that the highly congested state of the uterus and its

appendages, which exists at the time of impregnation, gives rise to the effusion of coagulable lymph from its inner surface,—that this becomes organized, and constitutes the decidua. A recent opinion has been advanced that it is formed by a thickening of the mucous membrane. And although this comes to us from high authority, we are led to doubt the correctness of it—not only from our own observations, but from equally as high authority, as that of Dr. Sharpey, and Prof. Weber. That the mucous membrane is thickened and its villa are elongated there can be no doubt—but that the decidua is composed entirely of this membrane in a thickened state, we still want facts to prove. But to return,—whilst the formation of the decidua is going on, the ovum, which escaped from the ovary by the rupture of the graaffian vesicle, is passing through the fallopian tube to the uterus, there to go through successive stages of development.

Now let us turn to the nature and office of menstruation. The uterus and its appendages during this flow are found in the same state of engorgement—the rupture of a graaffian vesicle takes place with the escape of an ovum into the fallopian tube—the villa of the inner surface of the uterus are elongated—the ovum escapes into the uterus in the same manner—and an effusion of blood and consequently lymph takes place, but no decidua is formed—here the analogy ceases—but why cease here? surely from no other cause than the want of impregnation. The object of this function then is the formation of the decidua,—and menstruation may be defined to be, as Mr. Power said, "an imperfect or disappointed action of the uterus in the formation of the decidual membrane."

It will be seen that these are not hypothetical views presented to our minds unaccompanied by facts to confirm them; but legitimate conclusions drawn from facts, made without reference to any particular theory or preconceived opinion.

As to the formation of a *corpus luteum*, as some have supposed, at each menstrual period, when a rupture of the graaffian vesicle takes place, we shall have nothing to say at present, leaving this inquiry, replete with important consequences in a medico-legal sense, for a future occasion.

PART SECOND.

Critical Analysis.

ART. X.—*New Elements of Operative Surgery.* By ALF. A. L. M. VELPEAU, Professor of Surgical Clinique, &c., &c.; carefully revised, entirely remodelled and augmented with a *Treatise on Minor Surgery.* Illustrated by over 300 engravings; accompanied with an Atlas in Quarto of twenty-two Plates. First American, from the last Paris Edition. Translated by P. S. TOWNSEND, M.D., &c.; augmented by several hundred pages of New Matter, under the Supervision of, and *with Notes and Observations* by VALENTINE MOTT, M.D., &c., &c. In three volumes. Vol. 2d. J. & H. G. Langley, New York, 1846. 8vo. pp. 1092.

LITTLE more than a year ago we had occasion to notice the first volume of M. Velpeau's great work on Operative Surgery, as rendered into English by Dr. Townsend, of this city. The second volume is now before us, and the remaining portion is announced for October next; so that in the course of the present year, we may hope to see the complete work in its American dress, with all its addenda.

The original treatise has been too long before the profession and too favorably received, to need any special commendation or criticism, at present. In some departments of Surgery, and more particularly in reference to the claims of American Surgeons, it is perhaps not quite so full as it might have been. But, taken as a whole, it is beyond all comparison, the most thorough, systematic, and philosophic exposition of all that pertains to Operative Surgery, that has ever yet appeared. It has already served as the ground-work for numerous systems and manuals of more or less note; and it is destined to hold its present rank among the classical literature of the profession and as a book of continual reference in the hands of practical surgeons, long after these systems and manuals have been forgotten. With this estimate of the original, we cannot but congratulate our professional brethren on the appearance of the present publication.

During the few days that have been allotted to us for noticing this second volume, we have not had sufficient leisure to compare it very closely with the text of M. Velpeau. But of Dr. Townsend's merit as a faithful and competent translator, we satisfied ourselves sufficiently, in our examination of the first volume.

The second volume occupies nearly eleven hundred pages, and is devoted to some of the most important subjects in the whole range of Operative Surgery. In connection with the text, we find here some valuable contributions from the pen of Dr. Mott; the details of the most of Dr.

Mott's important operations, particularly in the department of aneurisms and the excision of bones; a few original communications from other surgeons; and a vast amount of excerpts and annotations, by Dr. Townsend.

We do not propose at present to enter into a critical examination of the extensive collection of practical matter detailed in this volume. Of the text we shall have little or nothing to say. We must content ourselves with a simple enumeration of the subjects spoken of, and with a hurried glance at those portions of the book that have been furnished by the Editors.

Commencing, then, with Dr. Townsend's preface, we find him clearly in love with his labor; but still more in love with his collaborators. It will be remembered that, in our notice of the first volume, we had occasion to offer a few words in qualification of Dr. T.'s eulogy on M. Velpeau. We now find him devoting his attention to his other associate.

"Another source of extreme satisfaction to me will be in the reflection that the profession in after times, perhaps, may not be unwilling to bestow their commendation upon these efforts. But a still higher source of gratification I frankly confess, is that of the conviction, that in my attachment to a long-cherished, personal, and honored friend, preceptor and kinsman, and one whose eminent skill justly fills so large a space in Surgical history (Dr. Mott), I may have been, as I pledged myself I would be (see vol. i.), instrumental both for him, and for his country, in rescuing the details of all his great and master operations, and discoveries, and improvements in surgical processes and principles, from that indistinctness into which they were necessarily passing, by his neglect (culpable, it would be, but from his repugnance to self-laudation), to gather them together as I now have done in these volumes, from the scattered Medical and Surgical periodicals and fugitive works in which they had been briefly registered, successively as they emanated from his great practical mind, or were created into existence by his incomparable genius and consummate skill."—P. iv.

One is almost ready to believe that Dr. T. has been contemplating Dr. Mott through some sort of compound microscope, the glasses of which, though of sufficient magnifying power, were by no means achromatic, since they appear to have cast an iridescent glow over the object of his study, which other observers will hardly admit to be natural. The following paragraphs will sufficiently illustrate our meaning. Long may our illustrious friend and townsman, Dr. Mott, live to enjoy his own apotheosis!

"I feel constrained also to add, that the accomplishment of this part of my labor is one to which considerations of love of country add, in my mind, no slight degree of value. For young as our country is in history, and filled as its annals are with great names, both in the heroic period of its settlement, and in its subsequent ages of military renown, national emancipation, and diffusion of the arts, there is, in my humble judgment, no name that adorns those annals either in the battle field, or in the councils of government, or in its diplomacy, that has added more sterling reputation and abiding lustre to the intrinsic glory and future fame of America, than that of VALENTINE MOTT, unaided and ungilded though that name may be, by the insignia of office or of power.

"For one who, in his duties as a Christian and a man of science, has done so much personally in the active field of benevolence, and struck out such noble discoveries and new paths to enable us more effectually to alleviate the miseries of our fellow creatures, there will be a balm, as we believe, that will rest upon his memory in after time, less dazzling perhaps, but certainly full as enduring, and far more endearing to future generations, than any that the most ardent

homage of patriotism could feel inspired with, for the glare of the most brilliant civic or military exploits."—P. v.

Leaving the preface, we next arrive at what Dr. T. calls a "Supplementary Appendix." This occupies about eighty pages, and is mostly made up of extracts from recent publications, the greater portion of which should have been omitted, or condensed. Dr. Townsend's main defect as an annotator, and one that is conspicuous in many parts of this volume, is a disposition to dwell too much on mere novelties, without due regard to the character of the main work; often to the exclusion of many points in American Surgery which M. Velpeau has either mis-stated or omitted. Still, as an editor, he has posted up many facts that add to the value of the book. He has collected together almost all that Dr. Mott has ever done, and for this we have to render our acknowledgments. But, however much Dr. Mott and "American Surgery" may be associated, it is well to remember that the two are not identical. True, Dr. Mott is looked upon as the Coryphæus of Surgery in America; yet, as such, he should not be allowed to overshadow and eclipse his humbler associates. In every enlightened community there is usually connected with one or another of the great departments of science and art, some one name particularly conspicuous; but this name, among the living, is never long the same. The rainbow persists, while the drops that reflect it are continually changing.

In turning at random to the wonders and curiosities embodied in this "Appendix," the first that meets our eye is an alleged instance of cure, in about a month, after an operation for the extirpation of the whole of both upper jaws. All of which may be true, or—it may not. We have not room to quote it.

At another page we find that tetanus has recently been cured by alcoholic drinks; a mode of practice which may perhaps be new to Dr. Townsend, though not so to others. We cannot see that it has any relation, more special than other internal treatment, to operative surgery.

At a third point we meet with a citation of three pages, to show the advantage of treating morbus coxarius by fixing the limb in the straight position, as set forth, within the past year, by Mr. Key, of Guy's Hospital, London. The practice here recommended is worthy of attention. But Dr. T. might have known that this very practice we ourselves have been in the habit of employing in the treatment of hip-disease, at the New York Hospital, for several years past; and yet that we lay no claim to it, as original with ourselves; the first suggestions that gave rise to our adoption of it coming, as we believe, from Philadelphia. We may, perhaps, take some future opportunity of recurring to this subject. We would now simply remark, that the practice to which we allude, viz.: confining the patient to bed, and extending and securing the limb in the straight position, as in ordinary fractures of the thigh, has, in our hands, answered a better purpose than any other mode of treatment that we have ever brought to bear upon this obstinate disorder.

The "Supplementary Appendix" closes with the following passage.

"A perfect *cure of a case of spina bifida*, in a child aged about nine years, was effected at least *fifteen years since* by Dr. Mott, by means of the entire exsection of the tumor, which was near the size of a goose egg, and which had existed from birth, over the lower part of the dorsal vertebræ. The integuments and sac had become very much thickened, so as to have even a normal appearance. An

elliptical incision was made on each side of the tumor, in order to leave integument enough to be approximated over the deficiency in the vertebræ. The wound was then treated by interrupted sutures, in the manner of hare-lip. It healed perfectly by the first intention, and the child was completely cured, and afterwards enjoyed vigorous health. It will be seen, therefore, that this process, lately successfully revived (see notes in the text of this volume towards the conclusion), was certainly employed in this country, and with the most happy result, by Dr. Mott, as far back as the year 1830. A case, we perceive by the *Gaz. Médicale*, has very recently been cured in France by excision of the tumor, and then uniting by a sort of quilled suture."—P. xcix.

Dr. T. might have further stated, that "this process was certainly employed in this country, and with the most happy result," by Dr. Sherwood, of Rutland, "as far back as the year" 1811; and for this have found authority, either in the New York Medical Repository, vol. 17th, p. 208, or in Chelius's System of Surgery.

Arriving at the body of the work, we find this volume commencing with

Section Fourth. *Operations upon the Arteries in general.*—This section, occupying 117 pages, is divided into three chapters, and materially augmented by annotations. *Chapter first* is devoted to Anatomical Remarks; *chapter second*, to the Spontaneous Termination of Lesions of Arteries; and *chapter third*, to the Treatment of Arterial Lesions. The editorial notes are scattered promiscuously throughout the text. To some of these we may perhaps have occasion to return.

Section Fifth. *Operations upon Particular Arteries*, occupying 263 pages, is divided into four chapters of text, interspersed with annotations, and augmented by an additional chapter from the pen of Dr. Mott.

Chapter first is devoted to the arteries of the Lower Extremities; *chapter second*, to those of the Upper Extremities; *chapter third*, to Arteries of the Head; and *chapter fourth* to Arteries of the Neck. The additional chapter, by Dr. Mott, is entitled "Remarks on Aneurisms." It occupies, with its supplement and appendix of cases, about one hundred pages. This chapter is one of considerable importance—personally, to Dr. Mott,—since upon some of the facts herein recorded, his reputation as a surgeon has mainly been established; and generally, to the profession, in the bearing of these facts upon the history of surgery. We will hasten to return to it.

Section Sixth. *Operations upon the Veins*, occupying, with notes and comments, about 38 pages, is mainly devoted to Varices. Here we find Dr. T., in behalf of M. Velpeau, and almost against the will of the latter, advocating a claim to Sir Astley Cooper's operation for the radical cure of varicocele; but in so doing, he has mistaken Sir Astley for his nephew, Mr. Bransby Cooper. Here, too, we find that the poor surgeons of America, with their humble contributions to the surgery and pathology of the veins, have been quietly set aside, to make room for M. J. Helot, M. Vidal de Cassis, and a host of other names equally unknown to fame in this department.

Section Seventh. *The Lymphatic System* occupies but a single paragraph.

Section Eighth. *The Nervous System*, occupying 19 pages, is divided into *chapter first*, Operations upon the Nerves of the Head and Neck; and *chapter second*, Operations on Nerves of the Limbs; and is augmented, as usual, by an abundance of notes. Among these we would like to have inserted a "somewhat novel" operation of our own, the subcuta-

neous section of the Anterior Tibial Nerve, as it passes behind the head of the fibula. We have, it is true, not thought it worth while, as yet, to make formal announcement of it in print, although performed more than a year ago; but it is as well to note it here, lest before the appearance of the last volume of these New Elements of Operative Surgery, our friend Dr. T. should find a notice of something like it, either in Braithwaite, or Ranking's Retrospect.

Section Ninth. *Amputation of the Limbs*, occupying 225 pages, is divided into *part first*, Amputations in General; and *part second*, Amputations in Particular; and each of these is subdivided into several chapters. We find among the notes in this section, a citation from the *Jour. des Connaiss.*, &c., for August last, going to show that some one has recently amputated at the knee-joint, in Mexico; but we find no notice of the very ingenious and creditable operation, at this same joint, by our delinquent friend of Philadelphia.

Section Tenth. *Excision of Bones*, occupying 254 pages, is divided into *part first*, Excision in the Continuity of Bones; and *part second*, Excision of Articulations. Each of these is subdivided into several chapters. Dr. Mott's own labor in this department of surgery, as herein recorded, is of much interest. These contributions, taken in connection with his "Observations on Aneurisms," will probably constitute his principal legacy to the profession. As such, we would have been more pleased to see them presented to the public in an independent form. But since Dr. M. has thought best to unite his fortunes with those of M. Velpeau, all we have to say is, that M. V. has reason to be proud of the connection; not that Dr. Mott has said so well what he has had to say, as that he has, on the whole, done so well what he has had to do. It is better, says Carlyle, to act an epic, than to speak it.

We do not find by the notes appended to this section, that Dr. Mott has ever had occasion to perform an operation for the total extirpation of the upper jaw. No mention is made of the operations of this sort that have been performed in this city, or in other parts of this country, and Dr. Townsend, in one of his comments entitled "Exsection of the Upper Jaw," has confounded this operation with the older modes of attacking this bone in its continuity.

Section Eleventh. *Trephining* occupies 39 pages, and is divided into three chapters; *first*, on the Modes of Trephining the Head; *second*, on Trephining the Bones of the Trunk; *third*, on Trephining the Bones of the Limbs. In this section we find nothing introduced, by way of note, to the credit of the late Dr. Nathan Smith, or of his son, Dr. Nathan R. Smith, for their well known operations with the trephine in connection with suppuration of bones; but a special note is introduced to inform us that a certain M. Moulaud, some time last year, did what these American practitioners long since taught him to do.

Section Twelfth. *Tumors*, occupying 36 pages, and terminating the volume, is divided into, *chapter first*, Tumors of the Integuments; and *chapter second*, Vascular, Fungous, and Erectile Tumors. Among the few notes introduced into this section, we find nothing to detain us.

We must now return from this hasty and imperfect outline of the contents, and general arrangement of the volume, to notice more particularly a few passages amid the crowd of materials which have been furnished by the editors. Of Dr. Townsend's portion of these, we have, perhaps, already said enough. We shall refer to him, hereafter, only as the

reporter for his associate. The remaining pages of this article must be assigned to Dr. Mott. And, first, of the graduated compress of sponge; a mode of treatment "somewhat novel," for the arrest of arterial hemorrhage.

"Dr. Mott believes he has seen an instance lately, in which the subclavian artery, without the scaleni muscles, may have been wounded during an operation for the removal of a small tumor above the clavicle. The wound was probably of the nature of a *small flap* on its superior surface, between the first rib and the scalenus anticus muscle. In fact, the artery was perhaps nicked in this part, as a terrific hemorrhage ensued. In this dilemma, Dr. Mott being sent for, adopted instantly a treatment somewhat novel, but which proved eminently successful, and went to corroborate his suggestion that it was the subclavian which was wounded.

"The practice consisted in the immediate application of a *small portion* of compressed sponge upon the bleeding part, which was situated at nearly the depth of the forefinger. This was followed successively by other small portions of sponge, until the wound was entirely and *compactly* filled up. An entire flat piece of sponge, just the size of the external opening of the wound, was now nicely adjusted over the ten or dozen smaller pieces which had been previously impacted. Finally, a larger flat piece of sponge, of still greater dimensions than the last, was now used to cover the whole mass, and to extend some distance on every side beyond the margin of the wound.

"Pressure with the hand was then made, by a succession of assistants, unremittingly for three days and three nights. After this, the pressure was confided to adhesive straps and a bandage, until suppuration made it proper to commence the removal of the sponges. This was done from day to day, with the utmost care, and by taking away piece after piece, without the least violence, until the last was separated, which was finally effected at the expiration of a week from the time that this surgeon commenced with their removal. The wound then granulated, and healed beautifully.

"The advantage of the use of sponge, as a means of arresting hemorrhage, has long been favorably known; but Dr. Mott considers that its great value, in cases like that here related, consists in the application of a number of small and separate pieces, by which portion after portion, at a suitable time, may be removed, with the least possible violence to the wounded artery.

"Every surgeon who has been in the habit of using compressed sponge to arrest small and vexatious hemorrhages, must be aware of the great inconvenience and hazard of one entire large piece; for when the time arrives for its removal, the granulations are found to have penetrated into its cellular texture to such extent, that the force required to take it away, and to tear it loose from these connections, endangers a renewal of the bleeding. All of which is obviated by the successive superposition of small and separate pieces or chunks.

"This treatment appears to have been so nicely adapted to the little flap or nick supposed to have been made in the subclavian in this case, and to have compressed and secured it so perfectly to its place (as in the restitution of organs, see vol. i.,) as to have reunited its lips to the parent trunk by first intention.

"Dr. Mott sees no reason, from experience and observation, and the records of surgery, to doubt the possibility of such a wound, even in a large arterial trunk, being healed, without the trunk itself being obliterated, or its calibre being sensibly diminished. He is of the opinion that, if the subclavian itself in this case was not wounded, it must have been an enormous anomalous branch, close to the great trunk; for his finger, which commanded the hemorrhage, was upon the subclavian artery, and the first piece of sponge was passed quickly under the point of the finger itself, and there held until another was stowed away by its side."—Pp. 30—32.

The case above referred to, is one that has already been reported in this journal (May, 1845, vol. 4, p. 340). It has, in various other forms, been presented to the public. We shall not allude to the personal vitupe-

ration, crimination, and recrimination, to which it has already given rise. Our business at present is only with Dr. Mott's version of it. The foregoing statement, we must premise, is in the language, and with the emphasized expression of Dr. Townsend, who, we believe, never saw the case. But Dr. T., in his preface, has expressly declared that all the new matter introduced by him, has been "under the immediate supervision of Dr. Mott." Dr. M. then claims for himself the credit of curing what he considers a wound of the subclavian artery, by the use of "compressed sponge."

Now, there appears to us a certain want of candor, in the attempt to establish this fact. Let us take a bird's-eye view of the circumstances.

The patient, it appears, was a lady, who had submitted to an operation for the removal of a lymphatic tumor, not larger than a hickory nut, seated above the clavicle, and well on towards the shoulder. That version of the case in which the operation is most bitterly attacked, admits that the tumor was small, *subcutaneous*, and situated *on the shoulder*. The incision for its removal had been made parallel with the fibres of the platysma myoides muscle, over the centre of the swelling, and about two inches long. The lower portion of the tumor had been already detached. But before it was entirely removed, a vessel, "closely in contact with the tumor on its outer surface," was divided. The jet of blood that followed was *not emitted per saltum*. "It would not have filled a half-pint bowl in six minutes." No ligature was applied. Pressure with a sponge appeared to have effectually arrested the bleeding; which, altogether, did not exceed four ounces. The patient, during the operation, was in a sitting posture, and at the close of it, "walked up to her bed-chamber." The surgeon, after dressing the wound, remained in the house for about an hour, and another hour passed away before any recurrence of hemorrhage. On his return he found the patient in a sitting posture, and the dressings saturated with blood. These he removed; applied both thumbs over the wound and sent for further surgical assistance. Sundry gentlemen were accordingly summoned, and among the rest, Dr. Mott. The hemorrhage must have been rather profuse. It had nearly subsided before these gentlemen arrived. We need not repeat any portion of the case recorded by Dr. Mott, further than to say that no attempt was made to explore the wound; that pressure over the injured vessel *never once checked the pulsation at the wrist;* and that *the wound never cicatrized.* About the sixteenth day, erysipelatous inflammation appeared around the edges of the sore, and soon spread extensively over the surface of the body, attended with a typhoid form of fever, and gradually exhausted the patient. Death occurred in about a month after the first accident. There was no post-mortem inspection of the body.

Under the foregoing circumstances, we would ask, what reason was there for supposing that the subclavian artery had been injured? The situation and character of the tumor would lead to no such inference; and, during the dissection, "the knife was not carried out of the way of the tumor at all." The hemorrhage was not emitted per saltum. Pressure on the wound never interrupted the circulation at the wrist. In short, the bleeding, for all that we know to the contrary, might have been from a divided vein. We do not undertake to show that such was the fact. But the color of the blood is no sufficient argument against such a conjecture, nor is the amount of hemorrhage. Every one familiar with sur-

gical operations, knows that venous hemorrhage is sometimes of so bright a color as to mislead both operator and assistants. And if instances were necessary to show that the amount of venous hemorrhage may be so considerable as to lead to similar mistakes, we might cite a case within the range of Dr. Mott's own personal experience, in which the late Dr. Post, Dr. Stevens, and himself, were so far misled as to make preparation for taking up the external iliac, for arresting a hemorrhage at the groin, which, on the removal of the pressure, had already ceased of itself, and never recurred.

Again, what authority have we for supposing that the wound was made in the form of a *small flap*, or that such a flap, in the trunk of the subclavian artery, could, by graduated pressure, be made to heal by the first intention, without obliterating the vessel? A couple of gratuitous conjectures, to get rid of accounting for the persisting pulsation at the wrist.

But, after all, the turning point in this case was the introduction of the sponge.

We have asked some of the gentlemen who were present, why no attempt was made to explore the wound, and secure the divided vessel; and have been told, that this question was in agitation among them when Dr. M. unluckily recommended his sponge tent. Unluckily, we say; for, from the history of the case, as far as we can make it out, both from published and verbal reports of it, we cannot but suspect that the erysipelas, which terminated the patient's life, was the direct result of the protracted and "terrific" irritation of this foreign body, which was "stowed away" compactly into the wound, and held there by the hands of assistants for three days and nights, and subsequently, by means of adhesive straps and bandages.

Whatever, then, may be Dr. Mott's estimate of his own peculiar practice in this case, to the facts of which he has given so unwarrantable a turn, we have only to say, that in a similar case we would not recommend its repetition. We must now turn to his "remarks on aneurisms."

These he commences, by some reflections on a recent case, in which he and others were led to mistake an aneurism of the aorta for an abscess. This case has also been recorded in a former number of this journal. In Dr. M.'s comments upon it, we meet with some judicious observations.

"All surgeons, whose opinions are of any value, will readily excuse mistakes that are made by even those who have had the greatest experience, because, notwithstanding all the light afforded by pathological investigations and stethoscopic examinations, it will, we think, be generally admitted by the profession, that no subject is more difficult and obscure than that of sub-sternal and thoracic aneurism.

"Certainly, when aneurisms show themselves as they ordinarily do near their origin, destroying the superimposed tissues, soft and hard, and presenting a pulsating tumor to the eye and touch, the true nature of the case is almost self-evident. But when they *sprout out* to a great distance from the trunk on which they have originated, in the form of a long tube or neck, developing their true character at a remote point, the diagnosis must necessarily always be exceedingly difficult."—P. 285.

The second topic of this chapter is the "arteria innominata."

It is somewhat remarkable that Dr. M., the originator of the operation upon this vessel, an operation to which he unquestionably owes much of his reputation, should be so little acquainted with the statistics of it. M.

Velpeau has cited six cases in which it has been performed on the living subject. These, says Dr. Mott, "as far as my information reaches, are all that we possess any authentic account of."

We beg leave to refer him to another unsuccessful case by M. Hutin, of which he will find a notice in the Amer. Journ. of Med. Sci. for Oct., 1842, and in other places. Other cases are referred to by Mr. Fergusson. And these are not all. Our worthy friend, Dr. R. K. Hoffman, of the New York Hospital, some years ago, attempted the operation; and after making a most thorough and satisfactory display of the vessel, finding it already involved in disease, he very properly desisted from passing the ligature around it. Mr. Fergusson alludes to a similar attempt by Mr. Porter, of Dublin; and this permits us to say, that among our private communications from Dublin, we have received the whole of the details of this last operation, which, if we now recollect rightly, was performed since that of Dr. Hoffman. These instances, then, materially augment the list from which M. Velpeau has already made up his mind to reprobate any further attempts upon this vessel.

Dr. Mott, however, is of a different opinion. And notwithstanding his recent and remarkable conversion to "conservative surgery," and a somewhat inconsistent opposition to Dr. J. K. Rodgers's late operation on the left subclavian, we still find him advocating further attempts upon the innominata.

"I am aware that many surgeons will still doubt the propriety of attempting any future operations upon this artery, as all the cases have terminated fatally. Yet I am free to say, that if ever a case should present itself to me again, I should *tie the primitive carotid at the same time that I tied the innominata*, as both can readily be done through the same incision. I am very well aware that this would be objected to by some as inflicting an extent of operation new and untried; yet it seems to me, that by thus intercepting the retrograde current through the primitive carotid, there would be less chance of any reflux hemorrhage, in the event of a phagedenic ulceration being set up in the wound. This is, however, a most momentous question for a surgeon to decide upon, and must ever be left to his own judgment and discretion."—P. 287.

Dr. M. next alludes to his operations for securing both carotids.

"In all the cases in which both the carotids have been tied, an interval of some months has generally been allowed to elapse. In one of my two cases, twelve months passed away before it became necessary to tie the remaining carotid. This young man did not experience the least inconvenience when the circulation was interrupted through the last carotid, and he recovered perfectly.

"In the other case, which I have never yet published, the imminently hazardous and formidable character of it was such as to justify, in my opinion, the tying of both carotids at the same time, with an interval of only about fifteen minutes. Coma and stupor in the course of a few hours supervened, and he died within forty-eight hours."—P. 288.

We regret that we have in no part of this book an "authentic" account of this last case. It is one to which, in former reviews, we have had, more than once, occasion to allude. The patient, before Dr. M. took charge of him, had undergone an operation for what had been taken for disease of the parotid gland, but which was, in fact, only a carcinomatous degeneration of the lymphatic glands of the neck. The disease, of course, returned; and before the patient entered the hospital, it had made

most frightful havoc with the tissues on both sides of the neck, and was extending upwards along the back of the head.

The ligature of the right carotid gave rise to no unpleasant symptoms; but on interrupting the circulation through the second vessel, the patient, after a sort of convulsive shudder, swooned away. The ligature was slackened, and he recovered; it was again tightened, and he swooned again; it was loosened a second time, and a second time he rallied. It was tightened a third time: he swooned a third time; but, after a few moments, he so far rallied as to open his eyes. The knot was permanently secured; he never spoke afterwards. The operation was performed just after mid-day, and the patient died in the course of the following night.

As an instance in illustration of the effects of ligaturing both carotids simultaneously, this case is of vast moment. The placing of a ligature, however, on any vessel, for the cure of unequivocal carcinomatous degenerations, is a practice which neither sound pathology, nor discriminating surgery, should ever sanction.

We cannot here attempt to follow Dr. M. through his remarks on ligatures of the subclavian artery; and we must leave to Dr. John Kearny Rodgers the business of defending his own operation on the left subclavian at the inner side of the scaleni, a business which, we believe, he is prepared to undertake, (see page 219 of this number). Neither shall we stop to settle the relative claims of Dr. Gibson and Dr. Mott, to the honor of having first applied a ligature to the common iliac. The facts upon which this question may be settled, are already familiar to the profession.

Had we sufficient space at our disposal, we would willingly give place to Dr. Mott's judicious observations on the best mode of arriving at the external iliac. But we must conclude our remarks on this important chapter of his by a few observations on a case herein quoted, the first, perhaps, that Dr. M. ever published.

Dr. M., at page 290, refers to the case in question, as one in which Astley Cooper attempted to place a ligature on the left subclavian within the scaleni. "We saw," says he, "the first and perhaps the only attempt that ever was made to tie this artery. This was by my illustrious and revered preceptor, Sir Astley Cooper. After working indefatigably with all his eminent skill and superlative tact for an hour and a half, he abandoned the operation as hopeless." Dr. M. has since made this same statement as his main objection to any further attempt upon the vessel at the point indicated. But in printing this, and in advancing it as an insuperable objection to Dr. Rodgers's operation, he has sadly forgotten his own record of Astley Cooper's case, which we here find republished from the New York Medical Repository, for 1810. It turns out, after all, to be, as we believe, the case in which Mr. Cooper, in 1809, is said to have applied a ligature to one of the nerves of the brachial plexus.

"'The situation of the man being truly painful, and it being evident that the disease must prove in a short time fatal, if no operation were to be performed, A. C. was determined to make an attempt to take up the subclavian artery, just after it had passed betwixt the first and second scalenus muscle."

The vessel then was exposed *just after it had passed betwixt the scaleni.* Has this operation never been attempted since 1809? In what does it correspond with Dr. M.'s present recollections of it? or with the operation of Dr. Rodgers?

Sir Astley Cooper, it is reasonable to presume, knew something, even at that early day, of the relative anatomy of the *thoracic duct.* Were he now living, we fear he would blush to find himself represented as unacquainted with it. For surgeons of the present day think no more than he did in 1809, of meeting with this duct, in their operations upon the subclavian artery "*just after it has passed betwixt the first and second scalenus muscle.*"

"Would any but a great mind, conscious of its own powers, and the rectitude of its intentions, make the following remarks?—He said to me, 'I am suspicious that, in this operation, the thoracic duct must have been divided, as it was on the left side; though I did not think of it at the time of the operation, nor before it.' I could not learn that any person present had thought anything about the danger of injuring this vessel; no doubt from its being a vessel which we have never been accustomed to think of in any operation. I regret that it is not in my power, at present, to satisfy the curious on this point, as A. C. had not ascertained the fact when I left London."—P. 305.

We had marked one or two other passages in this report of Mr. Cooper's case. But time and space are urging us to desist. We must therefore hurry on to what Dr. M. has to say in some of the following sections. And next of his operation at the hip-joint.

The patient was a boy ten years old, who had suffered a severe fracture of the thigh, had been bed-ridden eight weeks, and was greatly emaciated by profuse suppuration.

"On the 7th of October, 1824, the patient, after having passed a comfortable night, was placed on the table in order to be operated upon. An incision was made over the femoral artery, as it emerges from under the femoral arch, and the vessel secured by a ligature. While feeling on the outside of the artery for the lesser trochanter, the pulsation of a vessel, apparently but little smaller than the femoral artery immediately below the ligature, convinced us that, in this case, the profunda femoris was given off above the femoral arch, as we occasionally find it. This vessel was taken up.

"Lisfranc's knife was then introduced between the artery and bone, and carried through close by the neck of the femur towards the tuber ischii, thus forming the inner flap. The external flap was formed by cutting from without inwards. The hemorrhage from the veins and small arteries was considerable when the incisions were made, and numerous vessels were taken up: but comparatively little blood was lost during the operation, and the patient was put to bed shortly after it was completed. After the inner flap was cut, some of the surgical attendants examining the lesser trochanter, pronounced that the head of the bone was *not diseased.* In order to satisfy the doubts expressed, the bone was sawed through the lesser trochanter, when it was found to be of the consistence of cheese, being denuded of periosteum on the outer side up towards the joint, and requiring to be removed, which was afterwards done, as originally contemplated."—P. 652.

There is a tradition abroad among the surgeons of the New York Hospital, that "the attendants," above mentioned, were Dr. M.'s colleagues; who, believing the head of the bone to be merely softened in connection with the general emaciation of the patient, and by no means in a condition to justify its removal, would not sanction this procedure; that Dr. M., in deference to their opinion, as he was in some degree bound to do, dressed the stump, leaving the bone in place; and that in the course of the afternoon, he returned to the patient, opened the wound anew, and dissected the head of the bone from its socket. Nothing is said as to the condition of parts within the capsule.

Now, this tradition is not wholly irreconcilable with the published ac-

count of the case. It only shows that the operation was of a class for which we have no English expression, but which in French surgery is called "*un procédé en deux temps.*"

Had we sufficient space we might find among the remaining cases recorded in this volume, much matter for contemplation. We need but refer to the great case of excision of the clavicle, which Dr. M. facetiously styles his "Waterloo operation;" whether because he never intends to repeat it, or never expects to exceed it, we will not undertake to determine. It was performed in 1828, and illustrates, as much as any other of his great performances, his consummate ability as an unshrinking, expert, and successful operator.

Dr. M., until very recently, had supposed that he was the first surgeon who ever successfully extirpated the lower jaw. Certain recent developments have led him to fear that posterity may be unwilling to award him this honor. We have no disposition to go into the matter just now; the facts are before the public.

In conclusion, be it observed, that in this hasty notice we have dwelt mostly on such of the editorial matter as appeared most open to objection. We have, for want of space, passed over much that is highly worthy of commendation. We have chosen this course, not the most agreeable to ourselves, under a sense of duty; knowing, as we do, that Dr. Mott's reputation as a practical surgeon, is no longer in need of the continued unction of unmeasured adulation. It has already placed him among the brightest ornaments of the profession. And it is too enduring to be materially impaired by the voice of independent and unbiased criticism. We have only room further too add that his contributions to this great work of M. Velpeau add much to its value as a book of reference, and that in the whole circle of surgical literature, there is no one work which we can more heartily recommend than this, to both student and practitioner, for all that relates to operative surgery. J. W.

ART. XI.—*Lectures on the Operations of Surgery, and on Diseases and Accidents requiring Operations.* By ROBERT LISTON, Esq., F.R.S., with numerous additions, by THOMAS D. MUTTER, M.D., Prof. of Surgery in Jefferson Medical College, etc. Philadelphia: Lea & Blanchard. 8vo., pp. 565.

THIS is a very attractive book, both in respect to mechanical execution and contents. Printed on fine white paper, with a fair new type, and embellished with more than 200 well executed wood-cuts, it presents altogether as beautiful an appearance as a work of art, as its matter is interesting and important to the practical surgeon. We should have preferred to have waited until Mr. Liston had completed his course, especially as the remaining lectures were to have been comprised in two additional numbers (monthly) of the Lancet: but we console ourselves with the reflection that the Editor intends to make up a second volume of equal size with the first, supplying from his own resources such amount of material as may be necessary for such purpose. In this case we shall have no hesitation in saying that the first volume ends very appropriately where it does, and if the addenda of the second volume equal in value those of the first, the profession will be in possession of a surgical work of the highest interest and importance. As far as the work goes, it must certainly be regarded as very complete, the Editor having furnished near 250 pages of additional matter, equal, we believe, in all respects, so

far at least as practical utility is concerned, with the original text of Mr. Liston.

The work commences with some very judicious remarks on the *Importance of Operative Surgery, and the necessity of a thorough knowledge of Anatomy; On Incisions, Hemorrhage, Dressing Wounds, Union of Wounds, and Sutures.* Professor Mutter has added a very useful section to the first lecture, relative to the action of a ligature upon the different vessels, and its influence upon the circulation of the neighboring parts, as well as in the vessel itself. With respect to the use of *sponge* for the suppression of hemorrhage, Mr. Liston remarks that there is this objection to it, that we cannot employ any great degree of pressure, in consequence of its yielding properties; that if allowed to remain any length of time in the wound, granulations shoot into its interstices, and hold it fast, so that we cannot remove it without causing both pain and loss of blood.

Prof. Mutter agrees with Mr. Liston as to the superiority of the water-dressing in wounds and injuries, and remarks as follows, p. 67:

"In lacerated wounds, to which Mr. Liston refers in the text, no dressing is comparable to the '*water*' in some form or other, and for several years I have employed as a *first dressing* nothing else. In summer I use *cold*, and in winter *warm* water, and apply it as recommended by Liston and McCartney, viz., after cleansing the wound, and approximating its edges, whenever this is proper, pledgets of *patent lint* dipped in water are to be gently placed upon its surface, and the whole covered with a piece of oil silk to prevent evaporation. In summer, I have found it best not to apply the oil silk, as it keeps the part too hot, and in its stead apply *two thicknesses* of wet lint, which will retain the moisture much longer than one. An assistant should, also, about every half hour, pour a spoonful or two of water over the dressings, but without removing them. Thus treated, I have seen the most terrific lacerated wounds from machinery or gunshot heal most rapidly by the first intention. Only a few weeks since I treated the son of a professional friend who had received a severe lacerated wound with the loss of a portion of two fingers from the bursting of his gun, by the cold water dressing, and nearly every fragment of skin that could be placed in a proper position, united by the first intention."

Dr. Mutter thus speaks of the isinglass plaster:—

"The isinglass plaster referred to by Mr. Liston, is exceedingly well made by Mr. Husband, of this city: and, for some time past, I have almost abandoned the use of the old adhesive plaster of the shops, which often in persons with a delicate skin, or children, produces troublesome irritation. In the first dressing of a wound, especially if a large one, we find it useful to apply strips of plaster to support the sutures, and before their application, we should be careful to shave the parts if covered with hair, cleanse them thoroughly and dry them. When the isinglass plaster is employed, it should be cut into strips of an appropriate width and length, and then moistened on the glazed side with a wet sponge. When the ordinary adhesive plaster is used, it should be heated by placing the strips around a bottle of water, or placing them on a warm dish. In removing the strips we must always recollect to begin at *each end*, and having lifted up the strip until we reach the wound, we carefully turn it (the strip) upon its side, in doing which it is detached. I have frequently seen much mischief result from an ignorant surgeon's tearing off the plaster, holding *one end only* between his finger and thumb."

Lecture II. treats of *Injuries of the Scalp, of the Cranium, and of the Brain, Lacerated Wounds, Fissures of the Cranium, the Trephine and its Indications, and Illustrated Cases.* These subjects are all admirably dis-

cussed. With respect to the indications for the use of the trephine, Mr. Liston thinks that it is quite right to trephine when matter is forming, and before the patient has suffered from its accumulation; but that it is altogether wrong when there is no accurate indication of its formation, or no sign to lead to the seat of the collection. The surgeon should remove foreign bodies within reach, or loose and detached splinters of bone; and in deep coma from depressed bone, he should take means to relieve the important organ whose functions are thus interfered with, but no further.

As Mr. Liston does not speak of the operation of trephining in *epilepsy*, Dr. Mutter makes some remarks on the subject, and gives a very instructive and interesting case. Dr. M. thinks that the surgeon is authorized to perform this operation, whenever the disease can be traced to some affection or injury of the cranium, the evidences of which are still distinguishable. The case referred to is as follows:

"*Epilepsy from Compression of the Brain cured by Trephining.*—David Black, æt. 27, three years since received a blow from a stick of wood thrown down a cellar, which caused a depressed fracture of the upper anterior part of the right parietal bone. No symptoms of compression being manifest, the injury was treated as a contusion, and the patient recovered without immediate difficulty, the depression still existing. Some three months after, the patient suffered from a slight epileptic fit, which, in the course of another month, was followed by a more severe one of the same character. Subsequently to this period, these epileptic attacks constantly augmented in severity and frequency, so that, at the expiration of two years from the occurrence of the accident, a week very rarely passed without a fit of such severity as to require the most prompt and copious bleedings, &c., in order to prevent a fatal termination.

"On the 6th of November, 1844, the patient presented himself at Prof. Mutter's clinic, at the Jefferson Medical College, for the operation of trephining, which was performed by the professor in the presence of his class. The operation was done with facility and speed, although the case presented great difficulty on account of the depth of the depression in the bone.

"Upon the removal of the portion of bone a prominent point was found upon its inner surface, which, with a membraneous layer of semi-organized lymph, had compressed and indented the brain. The patient expressed himself as *immediately* relieved from a sense of weight and tension in his head. A shred of lint was placed so as to project from under the flap, and the cold water dressing with the ordinary antiphlogistic treatment ordered. The patient speedily recovered, having had no recurrence of fits of any kind, and feeling better than he has done for two or three years.

"N.B.—Sept. 5, 1845.—There has been no recurrence or any sign of a recurrence of fits up to this time, the patient being now a healthy man, supporting his family in good circumstances, which he was entirely incapable of doing before the operation."

The Lecture on *operations on the eye*, is a very lucid and instructive one, but we can only refer to it in the most cursory manner The editor has fully supplied everything that was wanting to render the chapter complete, and we would gladly quote his remarks on the operations of Strabismus and Staphyloma, did our limits permit. The chapter on *Cataract*, by Dr. Mutter, extending over thirty pages, we look upon as one of the most valuable essays on the subject in the language. It is clear and methodical, sufficiently full, yet precise, and abounding in practical precepts of the highest interest. The remarks on deformities of the nose are evidently the result of much experience and observation; the following note on the treatment of *Ozæna*, by the editor, is worth remembering.

"I have derived the greatest advantage in ozœna from the following inhalation, provided no active inflammation exists, in which case leeches, emollient applications, and the antiphlogistic treatment should be preferred.

"Take cinnabar, one scruple; white sugar, two scruples; mix intimately, and divide into twenty powders, one of them is to be used three times a day in the following manner:

"Prepare a half pound weight or bit of iron and heat it, *but not to redness;* place this upon a shovel, and then pour one of the powders upon the weight. As soon as combustion takes place, a small *glass funnel* must be inverted over the weight so as to collect the fumes, and then its pipe is to be introduced into the nostril. So directed, the fumes are carried to every nook and corner of the nasal cavity; and I have seen this remedy alone produce the most beneficial results. The decoction of Zittman, the iodide of potassium, and Donovan's solution, are all capital alteratives in this disease, and may be used alternately." (P. 165.)

For a full account of the *Taliacotian* operation, illustrated by cuts, and other modes of correcting deformities of this important organ, we must refer to the work itself. *Hypertrophy* of the nose is the subject of some judicious remarks, and we may remark *en passant* that we lately cured an aggravated case of this kind of long standing, the organ being of ominous size, and of a flaming crimson hue, by directing the patient to make frequent punctures and incisions with a lancet, rubbing in freely at the same time the ointment of the *iodide of mercury*, and taking the same with sarsaparilla internally. The case, however, was not exactly a parallel one with that figured on page 182, which looks somewhat as if an india rubber bag were suspended at the nasal extremity.

The operations for *hare-lip* and *cleft-palate* are treated at considerable length, and made exceedingly clear by means of the accompanying illustrations; we can recommend these sections alone as worth far more to the surgeon, than many times the price of the whole work.

The same remark will apply to the next lecture, on the *Diseases of the Antrum, Carious Teeth, Erected Tumors of the Face,* and *Solid and Encysted Tumors.* We know of no systematic work on surgery, in which the anaplastic operations for removal or remedying deformities of the face, are so fully and satisfactorily described, as in this.

With respect to operations for the removal of tumors of the lower jaw, Mr. Liston gives the priority to Dr. Cusack, of Dublin, who he says "led the way in the performance of this operation." (P. 297.) We regret that Dr. Mutter should have allowed this statement to have gone uncorrected, as the claims of Dr. Mott to priority in the operation are generally conceded. His letter in the November number of our Journal for 1845, would seem to set this question at rest.

With respect to the *mode* of performing it, the plan of J. Rhea Barton, as carried out in the following case by Dr. Mutter, is highly creditable to the judgment and skill of the operator.

"I have repeatedly removed large portions of the lower jaw for tumors of different kinds, and generally speaking, as with Mr. Liston, the operations have been readily executed, and given rise to but little subsequent inconvenience. I have never lost a case from the effects of the measure itself. A few days since (Nov. 1st, 1845), I had occasion to remove a very large tumor, which occupied the symphysis, and about two thirds of the left ramus of the bone. The operation was performed before the class, and proved exceedingly interesting from the circumstance of my being able to preserve the form of the chin and jaw, and also to avoid all scar about the face. The patient being seated with her head supported by an assistant, I laid bare the tumor in its entire extent, by detaching

the lip and integuments of the chin and cheek from the adjacent bones. *No external incision was made*, and yet I had no difficulty in turning the soft parts down under the bone, so as to leave its base perfectly visible. I next, partly with a saw, and partly with a strong scalpel, cut through *the base of the tumor, leaving a small rim of bone composed of the rounded portion of the base of the lower jaw.* Two perpendicular cuts were then made (one on each side of the mass) with the cutting forceps, and the tumor thus loosened, was readily removed with a few strokes of the scalpel. As the hemorrhage was profuse, the actual cautery, and pledgets of lint steeped in creosote were applied, and with entire success. The lip was then brought back to its original position, and cold water dressing applied to the face; a perfect cure, *without the slightest deformity*, was accomplished in a few weeks." (P. 300.)

But we have already exceeded our limits, and can only say in conclusion that Liston's Lectures, with Mutter's additions, should be in every surgeon's library, and in every student's hands, who wishes to post up his surgical knowledge to the present moment.

ART. XII.—*Twenty-Fifth Annual Report of the Bloomingdale Asylum for the Insane; for the year* 1845. By PLINY EARLE, M.D., Physician to the Asylum. Pamphlet. 8vo., pp. 48.

WE here have another able and lucid Annual Record of the Medical History of this very important charity; exhibiting a most flourishing condition of the establishment, and demonstrating by unerring statements and figures, that it is still carrying out the benevolent designs of its founders, and fulfilling the great ends which called it into existence.

It appears that the past year was commenced with 104 patients (54 males and 56 females), and that since that time 138 cases have been admitted, 71 males and 67 females, making the whole number of cases under treatment during the year 242 (125 males, 117 females); of these 113 cases, 58 males and 55 females have been discharged; 7 males and 5 females have died; leaving in the asylum at the present time 117 patients (60 males and 57 females); of these discharged 61 were cured, 12 much improved, 20 improved, and 20 unimproved, being discharged at the request of their friends. Several who were believed to be curable, were prematurely taken away, thus losing the advantage which would have undoubtedly accrued from a longer residence in the Asylum. It also appears that the admissions in 1845 were 30 per cent. greater than in 1844, and 62 per cent. greater than in 1843. The deaths, however, have been fewer; having been 19 in 1843, 13 in 1844, and 12 in 1845. Deducting readmissions, or, not counting the same individual but once, there have been during the year 127 admissions, instead of 138—the greatest number (17) having occurred in November, and the least (4) in February. Dr. Earle truly remarks, that all cases readmitted during the year should be deducted from the whole number of admissions, to avoid erroneous results necessarily following from including the same person twice or more, and that all the statistics of insanity computed without such deduction are directly calculated to mislead. We fear that this caution has not been generally observed in making out the statistics of our different Insane Hospitals, and it is very desirable that new tables should be

drawn up, on the plan pointed out by Dr. Earle. Delirium tremens, also, ought to be excluded, for this cannot be ranked with propriety under insanity proper. Excluding this, the forms of disease, in cases admitted at Bloomingdale during the past year, were as follows:—Mania, 65 ; partial, 11 ; moral, 2 ; melancholia, 22 ; dementia, 15 ; congenital imbecility, 2 ; delirium of phrenitis, 2 ; total, 119. Dr. E. classes under *partial mania* and *melancholia*, what are usually placed under *monomania*, which is a very rare disease ; nearly all persons called monomaniacs, having delusions or hallucinations upon a class or series of subjects. The exciting causes of the disease have, as usual, been reached under physical and moral, the former embracing 59 ; the latter 36 and 25 unknown. Of the former the most, intemperance, 7 ; self-abuse, 8 ; child-birth, 7 ; change of life, 8 ; injury of head, 4. Of the moral causes, the most operative were : pecuniary loss, disappointment, &c., 13 ; jealousy, 4 ; religious excitement, 3 ; disappointed affection, 3 ; political excitement, 3 ; &c. Dr. E. rejects the terms "hereditary" and "constitutional," in accordance with the belief that mental alienation is always induced by an exciting cause, even though the patient may have inherited a predisposition thereto.

Still, we believe, it would be useful to designate in some manner, such cases as may be supposed to have been hereditary, although the exciting cause be given ; as a knowledge of the extreme liability of such persons to insanity, would render them cautious in relation to exposure to exciting causes—and for this purpose, the facts must be spread before the public. In relation to the relative frequency of the two classes of causes, *moral* and *physical*, Dr. E. thinks that the latter predominates, although he admits the great difficulty, if not impossibility, of deciding in many cases, to which of these a particular case may belong. For example, a case may be attributed to intemperance, when the intemperance itself has been induced by a moral cause ; and so of cerebral disease, epilepsy, typhus fever, &c.

Dr. E. is of opinion that mental disorders are increasing in this country ; and that the exciting causes of insanity were never, in time of peace, more active, among any people, than at the present day among the inhabitants of the United States, and particularly so in the States which were the earliest peopled by European emigrants. Dr. E. very truly observes, that "intoxicating liquors are so cheap that the labor of a few hours will procure enough to addle the brain for a week, and prevent the healthy exercise of reason perhaps a much longer period. The avenues to wealth, place, and power, are open to all ; the child of the cottager thus entering into the strife of competition with the son of the most wealthy citizen. The progress of civilisation and refinement, and the comparative ease with which the products of both nature and art, in every quarter of the globe, are here obtained, have a direct tendency to foster a luxurious life. Hence human desires and human wants are greatly multiplied, while both mind and body are exerted to the utmost power of endurance to gratify the former and supply the latter. The almost unavoidable effect of the artificial mode of living, thus produced, is either a debility of the system or an augmentation of nervous excitability, either of which facilitates the invasion of mental disease." P. 12.

Again, Dr. E. observes :—

"Art has made advances so rapid towards the annihilation of time and space,

that, if life be measured by the proper standard—the number of events, circumstances and conditions, seen, felt or perceived—the amount of pleasure enjoyed and of pain endured—the people of the present generation have an existence of ten-fold longer duration than their forefathers. As if this were not enough, the mind is forced into an activity corresponding with the new era of art. Children, before the body has acquired sufficient tone, or the brain sufficient firmness, to endure much mental exertion with impunity, are placed in schools where the intellectual faculties are unduly urged, while the physical exercise necessary to the development of the frame is too often neglected. Under such circumstances, the head will expand, but the body cannot grow in size or vigor sufficiently to maintain 'a balance of power.'

"If the child escape the more immediate dangers thus produced, he arrives at manhood with an unnatural susceptibility to mental excitement, as well as a predisposition to diseases of the brain, by what causes soever they may be induced. He enters the arena of life, and engages in the general struggle for advancement before alluded to. If a merchant, he is subject not only to the ordinary fluctuations of trade, but to those financial revulsions which appear to be consequent upon an unsettled policy of government, and an instability of the laws affecting commerce. Whatever may be his occupation or condition, he may become interested in some of the prevalent doctrines in politics, morals and religion, which are both maintained and opposed by a partisanship, a zeal, an enthusiasm, in many instances too nearly allied, it is feared, to madness."

Dr. E. gives us a table showing the duration of disease, when the patients were admitted, from which the most important practical fact deduced, is its influence upon the curability of the patient. Thus it appears, that of the recent cases admitted (68), 32 have been discharged cured, and of those that remain, 19 are believed to be curable; while of the chronic cases (51), only 7 have been discharged cured, and of the remainder only 8 are considered curable. We have tables, also, showing the "number of attacks, and of admission," "ages at the time of admission, and at the time of first attack," "civil condition," "color of hair," "color of the eye," "temperament," "occupation of the males," "places of nativity and residence" (89 American, 30 foreigners; 55 natives of New York, 32 residents of New Jersey), "delirium tremens" (10 cases, 1 death); "result of cases readmitted," "condition of patients discharged," "ages of patients discharged cured," "relation between the form of the disease and its curability" (of *mania* 50 *per cent. were cured*; of *melancholia* 57 *per cent.*; *partial mania* 25 *per cent.*; and *dementia* 20 *per cent.*); "term of residence in the Asylum," "causes of death" (congestion of brain 3, acute phrenitis 1, paralysis 1, consumption 1, epilepsy 1, suicide 1, diarrhœa 1, marasmus 1. Total 11).

The general remarks of Dr. E., appended to his very able Report, are extremely interesting, and we would gladly adorn our pages with them, did our confined limits permit. We can only condense a few important items. Dr. E. lays down these three propositions, a knowledge of which, he thinks, should be widely disseminated in the community:

"First.—*As a general rule, the first measure in the curative treatment of insanity, is to remove the patient from home, from acquaintances, and from all familiar scenes and associations.*

"Second.—*When the insane are placed under proper curative treatment in the early stages of the disease, from 75 to 90 per cent. recover.*

"Third.—*On the contrary, if they be not put under treatment before the disease has continued a year or more, from 15 to 20 per cent only are cured.*"

It would seem, from the following quotation, that the ancients understood the importance of the moral treatment of the insane, far better than many of the moderns:

"The ancient Egyptians, three thousand years ago, removed their patients to temples where 'agreeable songs and melodious sounds perpetually charmed their ears, and gardens of flowers and ornamented groves furnished delightful walks and delicious perfumes. Every moment was consecrated to some diverting scene and amusement, which had a most beneficial result on the diseased mind; interrupted the train of melancholy thought, dissipated sorrow, and wrought the most salutary changes on the body through the agency of the mind.'

"Although much of the superstition of the Egyptians, and many of the ceremonies of their mystic religion were mingled with these enlightened measures, yet, upon the whole, the treatment was far more rational than that which has been recommended by some high authorities in comparatively modern times, and among a people professing Christianity."

An impression very extensively prevails, that persons of disordered mind can be governed only through fear. Its incorrectness is happily exposed in the following passage:

"Show the insane man that you feel an interest in his case, that you really consult his welfare; that you will even submit to some self-denial or self-sacrifice to promote his interests, and, in nineteen cases out of twenty, you have secured a friend who will be the foremost to protect you from injury. There are but very few persons laboring under mental derangement, who cannot be approached as a brother would meet a brother. There is no place in all the earth where the infant can be more safely entrusted, than in most of the halls of a well regulated asylum for the insane; and none where the little child is more petted and caressed."

Dr. E. states that religious services are regularly carried on in the Asylum, and that 198 patients out of 231 have attended some portion of time, the greatest number present at any one time, being 79; and adds that as great a degree of order usually prevails as in most assemblies convened for divine worship. Dr. E. thinks, moreover, that attendance at religious services holds an important rank among the means of moral treatment. A school is also regularly carried on in the establishment, in which the ordinary branches of an English Education, including Chemistry, Natural Philosophy, and Geometry, are taught; and it is found to have the advantage of keeping a larger number of the patients under the influence of a curative discipline during a greater portion of the time than any of the other means of moral treatment.

In the autumn of 1844, Dr. E. commenced a series of Philosophical, Geographical, and Miscellaneous Lectures to the inmates of the Asylum, which he has continued to the present time except through the warmer seasons. The Asylum Committee have nobly seconded his efforts, and placed at his disposal an air pump, with its accompaniments, a set of mechanical powers; a magic lantern, with numerous pictures; an orrery; an electrical machine, with its implements; a pneumatic trough, reservoirs, retorts, and other articles used in Chemistry; 164 diagrams painted on bleached muslin, illustrative of the structure of the human frame, and of that of the lower order of animals; twenty similar diagrams explanatory of the laws and phenomena of light; ninety-five diagrams illustrating various subjects. With these appliances, Dr. E. has

gone over a wide range of most interesting subjects in chemistry, natural philosophy, and astronomy, describing many remarkable cities and places in the old world from his own personal observation; thus exciting the latent curiosity; rekindling the dormant spark of intellect in his hearers, and calling off their minds from brooding over imaginary sorrows; thus exerting a disciplinary restraint of the most salutary kind. Dr. E. deserves, as we think, great credit, for this new mode of moral treatment, and we hope to see the same introduced into other asylums of a similar kind. Dr. E. thinks that manual labor yields to none other in point of utility; promoting the appetite, sleep and general health, subduing excitement, while, at the same time, it amuses and occupies the mind. The principal amusements out of doors, are quoits and ten-pins; within doors, bagatelle, cards, chess, chequers, dominoes, reading, and a ball once a month during the cold season. *Restraints*, it appears, are entirely done away with at the Asylum, in the male department, and mostly in the female, and Dr. E. states that he "has no hesitation in asserting the belief that the patients have been more quiet and orderly under this general disuse of restraints, than they could have been with their constant use." The report closes with some very judicious remarks on the subject of "attendants," and the hope is expressed, in which we cordially unite, that "the time will come when persons will be specially educated for attendants, as teachers are educated in the normal schools, or as nurses are taught in France."

"Although," says Dr. E., "insanity does not work so great a change in man as is popularly believed, yet its existence is greatly to be deplored. No palliation, no argument, no artificial gloss can entirely divest it of its deformity, or conceal its melancholy horrors. Beneath its sway Reason is deprived of her throne; the most glorious attribute of man is, for the time, destroyed; the distinctive characteristic of the human race obliterated. Yet often, in its most protracted forms, when years, both many and long, have rolled away beneath its influence; when the sands in the glass of time are nearly spent, and the flame of life is flickering towards extinction, the mind rises, superior to the power that has crushed it, and, like the sun at the close of a clouded day, shines forth in the brightness and beauty of its primeval lustre. And when this resumption of the throne of reason does not occur in life, it is a cheering consolation of the Christian's faith, that the trammels of earth—the diseases incident to mortality—cannot be borne beyond the grave."

Not the least important part of this valuable document is, the very full meteorological report, occupying seven very closely printed pages at the end. The only thing wanting to render it everything that could be desired is, a record of the *Dew Point*, which could be taken with little additional trouble, with Daniel's Hygrometer, and which we shall hope hereafter to see appended.

ART. XIII.—*Report as to the Finances and Management of the Seaman's Retreat.* January, 1846.

IT appears from this Report that the "Seaman's Fund and Retreat Hospital," on Staten Island, received from every source, since the year

1831, inclusive, something more than 420,000 dollars, and that their expenditures, during the same period, have somewhat exceeded 408,000 dollars: the value of the property now belonging to the establishment being estimated at 128,819 dollars, consisting of forty acres of land, a brick edifice, three stories high, and measuring seventy-six by thirty feet, intended and used as an asylum for lunatics; a hospital of hammered stone, three stories high, and finished in 1836, at a cost of 90,000 dollars; a superintendent's house, physician's house, barns, out-houses, and offices, together with the usual and necessary stores, medicines, implements, furniture and stock, appropriate to such an establishment.

During a period of thirteen years since this institution was opened, it has received more than 16,764 patients, of whom about 680 have died, and over 15,960 have been discharged, cured, or relieved. The hospital at present used for the accommodation of the sick and disabled, is calculated to accommodate 200 patients. On the first of January, 1846, there remained under treatment, 108 white, and 30 colored patients, of whom 13 are considered incurable. On the 31st December, 1844, there were in the hospital, 81 patients; and there were admitted during the year 1845, 1,320—making a total of 1,401 who received the benefits of the institution during the past year. Of this number, there were discharged cured, 1,071; relieved, 77; discharged at their own request, 60; died, 55; leaving in the hospital, December 31, 1845, 180. Of the number treated during the year, 315 had syphilis; 135 gonorrhœa (urethritis); 152 rheumatism; 41 phthisis; 97 fever of various kinds; 43 bronchitis; 38 asthma from fever; 36 asthma from intemperance; 24 abscess, &c. The average number cured was 84, 8 per cent.; relieved 6, 9 per cent.; discharged by request, 4, 7 per cent.; died, 4, 36 per cent. Average number of patients, 111. Average duration of treatment, 29 days. Of the 16,764 patients treated in the institution from the time of its opening, October 1, 1831, to December 31, 1845, 732 died; being but 4·36 per cent., which we regard as extraordinary success. It appears that by far the greater amount of mortality in the Retreat is caused by chronic diseases, which, from the class of subjects in which they occur, and the length of time which, in most instances, had elapsed prior to their admission into the hospital, are necessarily incurable.

This, we believe, is the only Institution in the country which offers a permanent resting-place to the merchant seaman; and when prevented by the slow inroads of the numerous organic diseases to which his life of toil and hardship exposes him, from following any longer his laborious profession, he naturally turns towards it as the only retreat which legislation has provided. Hence, while there is always a fair proportion of recent and acute cases in the establishment, the number of disabled, superannuated, and invalided ones, is continually increasing, no other provision having been made for them, after the four months to which they are entitled in the United States' Hospital, and which is the equivalent they receive for the twenty cents per month tax paid to the government. This hospital, as is probably known to our readers, is supported by a tax imposed by our State of $1 50 for every captain and cabin passenger, and $1 for every steerage passenger and mariner of foreign vessels, and twenty-five cents for every master, mate, and sailor of every coasting vessel, to be collected by the Board of Trustees of the Seaman's Fund and Retreat. At present there are several suits pending against the captains of different steamboats, plying between the port of New

York and other States, which have been commenced to recover the penalty imposed by law, for refusing to pay the Hospital tax. The defence interposed, denies the constitutional right of the State to lay any tax upon the masters of coasting vessels, who have taken out a license from the Federal Government. Should this defence turn out to be valid, the Seaman's Fund and Retreat will be deprived entirely of the means on which it depends for support, and the objects of its care will become charges upon the county. We believe there is no other provision made by law for sick seamen, except at the City Hospital, which receives annually, from the United States tax, $16,000, on condition that they receive annually, 100 patients, each of whom they agree to support, if necessary, four months, and no more; so that the number of sick and disabled seamen exceeding the stipulated number, together with all cases of chronic or incurable complaints, would, were it not for this hospital, be without relief; and if paupers, would necessarily have to be supported by the city and county of New York.

The Annual Report is drawn up in a very clear and satisfactory manner by the resident physician, W. C. Anderson, M.D. From a statement of the superintendent we learn that the resident physician has a salary of $900 per annum, with house, fuel, and vegetables. The assistant-physician has $800, with house and living for himself and family. The superintendent $900, with house and living for himself and family. Chaplain, $300 per annum. Secretary, $500 per annum. Collecting agent, $500 per annum, and 2½ per cent. on all moneys collected by him. Apothecary, $25 per month, &c., &c. These salaries are sufficiently liberal, perhaps, provided the physicians have the privilege of taking students, and giving clinical instruction in the hospital wards; if not, they seem to us on rather a moderate scale.

ART. XIV.—*On Diseases of the Liver.*—By GEORGE BUDD, M.D., F.R.S., Prof. of Medicine in King's College, etc., with colored plates and numerous wood cuts. Phil.: Lea & Blanchard. 8vo., pp. 392. 1846.

BEFORE the appearance of this very elaborate treatise, a good work on Diseases of the Liver was a desideratum; we mean one fully up to the times in the anatomy, physiology, and pathology of this organ. It has been said that the prevalence of hepatic affections has been controlled somewhat by fashion; yet it cannot be denied that diseases of the liver are at all times of not unfrequent occurrence, and it is no less certain that they are by no means easy of discrimination, or cure. This important disease has ever been made a *scape-goat*, by the superficial, the ignorant, and the quack, but, thanks to modern science and research, it is not likely to be so much longer. It is somewhat remarkable that so few treatises have been written, of late years, upon this class of diseases, important as they are universally admitted to be, while the press has been teeming with essays on diseases of the *nervous system*, the *chest*, the *kidneys*, the *skin*, etc. Is this owing to the trivial character of hepatic affections, or to our vague and unsatisfactory knowledge of them? With the author, we cannot doubt that the true cause is to be found in the latter. Owing to the color and texture of the liver, it is difficult to detect

and define in the dead body the various effects of disease; unless, indeed, they have resulted in disorganization; whereas in the lung, whose texture is spongy and light, disease, even when slight, produces marked changes, so that we can readily discover and connect them with symptoms occurring during life. But in any solid organ, as the *kidney* or *liver*, which are nearly of the color of the blood, slight changes cannot be easily discovered; and various grades of inflammation and congestion might exist, and yet escape the eye of any but the practised pathologist, who is intimately acquainted with the minute structure of these organs. We see this fully illustrated in the fact, that *granular degeneration* of the kidney, a disease of a marked character, and attended during life with general dropsy and albuminous urine, was discovered only at a recent date; while the peculiar change attending it is still a matter of dispute among pathologists. Again, we can obtain but little information as to the physical condition of the liver during life. If the lungs be blocked up by lymph, or any dense material, we detect it at once by auscultation or percussion—we discover cavities in their substance; detect adhesions of the pleura, or the pericardial sac; ossifications and other diseases of the valves of the heart; thickening of its walls, or enlargement of the organ, but the *liver* can only be judged of in relation to its *bulk;* percussion enables us to trace its outlines, but leaves us entirely strangers to the changes going on in its interior structure. It may be said that even this is more than we can do in relation to the kidneys—but then the urine, its quantity, its quality, is a very important guide as to the manner in which their functions are performed. On the contrary, we cannot collect nor analyze the secretions of the liver; we are satisfied if we can say that the intestinal evacuations are tinged or not with the biliary fluid. It is true that we are able to recognize the presence of this secretion in the blood, bronzing or dyeing, as it does, the skin, and the adnata; and pointing to derangement of the organ, whose function it is to elaborate it; still, it must be admitted that our knowledge of hepatic diseases is extremely imperfect; our diagnosis uncertain; our therapeutics often unsuccessful, because tentative and empirical. Owing, however, to modern researches, two obstacles in the way of studying the diseases of the liver have been removed: 1st, we have obtained more precise knowledge of the composition and uses of the bile; and 2d, we have become acquainted with the intimate structure of the organs, so that, by the naked eye or the microscope, we can distinguish the various changes of its texture produced by disease. Our limits will not allow us to enter upon a consideration of these subjects, which ought to be familiar to every practical physician; but as they cannot well be illustrated in a brief space, or without illustrations, we must refer our readers to the admirable work which we are now noticing. Everything as yet known, relating to this important organ, will be found set forth by Dr. Budd, in his interesting volume, in the most clear and satisfactory manner, and we unhesitatingly assign to it the first rank among works relating to the class of diseases of which it so ably treats.

ART. XV.—*Half-Yearly Abstract of the Medical Sciences; being a Practical and Analytical Digest of the contents of the principal British and Continental Medical Works published in the preceding six months; together with a series of Critical Reports on the Progress of Medicine and the Collateral Sciences during the same period.* Edited by W. H. RANKING, M.D., Cantab., etc. Part II., Vol. I., July—December, 1845. pp. 373. New York: J. &. H. G. Langley, 8 Astor House.

THE second volume of this most excellent "Abstract of the Medical Sciences" fully sustains the high reputation of the first, and establishes its character as one of the most, if not *the most*, practically-useful work of the day. We certainly know of none which, in point of interest and practical utility to the great mass of the profession, can compare with it, and such it is admitted to be by all who have examined its pages.

Those who read Ranking's "Abstract," will become informed of every discovery and improvement made in every department of medicine, surgery, and kindred sciences, and in all countries, up to the time of its publication, and this information can be gathered from no other single work extant. The critical reports alone are worth ten times the cost of the work, being prepared by some of the ablest writers in the profession. In the present volume, for example, we have an elaborate report on the progress of practical medicine, pathology, and therapeutics, during the preceding six months, by the editor (29 pages); a report on the progress of surgery, by H. Ancell, Esq. (42 pages); a report on the progress of midwifery and the diseases of women and children, by the editor (14 pages); report on the progress of anatomy and physiology (19 pages); report on the progress of physiological and pathological chemistry, by George Day, M.D. (37 pages); report on the progress of forensic medicine and toxicology, by W. H. Guy (23 pages); report on the progress of materia medica and pharmacy (19 pages). To all this, we have prefixed a complete abstract of what is contained in the medical journals of all countries, and a record of all works on medicine and the collateral sciences that have appeared since the issuing of the preceding volume. (Price fifty cents a volume, or one dollar a year, in advance.)

ART. XVI.—*A Practical Treatise on Healthy Skin, with rules for the Medical and Domestic Treatment of Cutaneous Diseases.* By ERASMUS WILSON, F.R.S., Lecturer on Anatomy and Physiology in Middlesex Hospital, etc. With steel engravings. New York: Appleton & Co. 12mo., pp. 263.

MR. WILSON is evidently one of those who do not think that all medical and physiological knowledge should be wrapped up in a dead language, and confined strictly to the ranks of the profession. As ignorance has been said to be the "mother of devotion in religion," so some physicians seem to act upon the same principle in medicine, and hold that ignorance is the real source of the homage paid to the cultivators of the healing art; hence we find some late writers attributing the weakened confidence of the public in medicine to the preparation and dissemination of popular works on anatomy, physiology and hygiene. If such must necessarily

be the effect of imparting information to the great mass of the community relative to the structure, laws and functions of the human body, and, consequently, the *conditions* necessary to preserve it in health, then we say, at once, *so be it;* better that the profession be annihilated, than that its interests be maintained at the expense of the general welfare. But, fortunately, such is not the effect of enlightening the public mind on these subjects; on the contrary, nothing tends so effectually to cut up quackery, root and branch, than to impart to the community generally such an amount of anatomical, physiological and medical knowledge as will enable them to detect ignorance under the mask of science, and discriminate between the *professor* and the *possessor* of medical or surgical skill. How long, for example, would the ubiquitous Sweet family flourish if those whom they now persuade to labor under more dislocations than there are bones in the human body knew anything of the structure of their own frames. How long would the Thomsonians find victims for their infernal processes,—steaming, parboiling, etc., to say nothing of cayenne, lobelia, and "composition"—if the people understood the functions of the body, and, consequently, the danger attending such violent and incendiary measures. Every practising physician knows that his best patients are those who are the most intelligent, and that the greatest obstacle he has to contend with is ignorance, and the prejudices thence arising. With these views, we several years since prepared a work on physiology, for popular use, of which many thousand copies have been distributed over every part of the country; and the reflection that we have thus been instrumental in putting down quackery, by the dissemination of its antidote, *knowledge*, is one of the most cheering and gratifying reflections connected with our professional life.

We have made these remarks because we believe that many entertain mistaken opinions on this subject, and that it is the true interest of the profession to do all they can to enlighten and instruct the popular mind on topics relating to their physical welfare. If the science, or the practice of medicine, as now existing, cannot stand before such a concentration of light, then let them fall; the sooner the better; the time would soon come when they would be remodelled and rebuilt in a more substantial and durable manner.

The work of Mr. Wilson is constructed on the very principle we have pointed out; it aims to teach the reader the structure and uses of the skin, in the hope of awakening his attention to the necessity and manner of training it to the purposes of health; and, by laying down correct and simple laws, enables him to comprehend the principles upon which a sound and effective treatment of its diseases may be conducted. The author then takes up in succession *The Scarf Skin, the Sensitive Skin, the Perspiratory System, the Oil Glands of the Skin; the Hairs; Influence of Diet on the health of the Skin; of Clothing; of Exercise; of Ablution and Bathing; of Hydropathic Treatment; of the Rashes of the Skin: of the Eruptions of the Skin; of Warts and Corns; of Disorders of the Blood-vessels and Nerves of the Skin; of Disorders affecting the color of the Skin; of the Disorders of the Perspiratory System; of the Disorders of the Oil Glands and Tubes; and of the Disorders of the Hair and Hair-Tubes.* Of the manner in which these subjects are treated, we can speak in the highest terms of praise.

ART. XVII.—*Elements of Pathological Anatomy, illustrated by colored Engravings and* 250 *Wood Cuts.* By SAMUEL D. GROSS, M.D., Professor of Surgery in the Medical Institute of Louisville, Ky., etc., 2d edition, thoroughly revised, and greatly enlarged. Large 8vo., pp. 822—Barrington & Haswell, Philadelphia: 1846.

WE stated in our last number, the appearance of a second edition of this invaluable work; and we can now do little more than repeat the announcement. The work will not admit of analysis, and we can therefore only reiterate the opinion formerly expressed, that it is the most complete and useful systematic work on Pathological Anatomy in the English language. What renders the work particularly useful to the student and medical man is the attention paid in it to the normal characters of the various organs and tissues. The author has evidently not adopted the opinion of a late writer, that pathology has nothing to do with anatomy or physiology, but has gone upon the supposition throughout, that it is impossible to obtain distinct conceptions of the numerous and diversified alterations produced by disease, except by knowing the natural color, weight, volume, and consistence of healthy structure. He is right in assuming that the sources of fallacy and deception are so numerous, as to often lead even the experienced physician into error—causing him to consider as morbid, what is perfectly healthy, and *vice versâ*. When we consider that *principles of treatment* are often based on these mistakes and misconceptions, their injurious tendency becomes too obvious to require comment. Prof. Gross has also added greatly to the value of his work, by tracing in many instances the *causes* of the morbid changes described, as well as the *symptoms* connected with them, thus making it not merely a treatise on morbid anatomy, but one on general and special pathology. In this respect we believe it differs from other works of a similar kind, and hence has advantages over all others to the practical physician. The work deserves and must find a place in the library of every medical man, who aims at the character of a scientific or successful practitioner of the Healing Art. The colored engravings and wood cuts are exceedingly well executed, and the entire getting up of the work does much credit to the enterprising publishers.

ART. XVIII.—*Third Annual Report of the Managers of the State Lunatic Asylum.* January, 1845. 8vo., pp. 61.

THE late period at which this report has been received prevents our giving as extensive a notice of it as we would wish. Like all the other reports of Dr. Brigham, it is characterized by good sense, a thorough acquaintance with mental diseases, and a philanthropy ever awake to ameliorate the moral, intellectual and physical condition of this unfortunate class of our fellow-beings.

There have been in the Asylum during the year 553 patients; 282 men, and 271 women, admitted during the year 293, discharged 268, of whom 135 were discharged recovered, 78 improved, 34 unimproved, and 21 died, leaving remaining at the end of the year 285, 143 men, and 142 women.

The whole number of patients received into the Asylum since it was opened, 16th Jan., 1843, is 844; whole number discharged 559. Of this number 320 have been cured, 139 improved, 46 unimproved, 44 have died. Of the whole number admitted 509 have been supported by towns or counties, 325 by their friends. Dr. B. observes that "the good which an institution for the insane accomplishes, is not to be judged of, wholly by the number of cures effected, as, perhaps, as great an amount of good is done by giving comfort and enjoyment to a large class of incurable cases, who, but for it, would have passed their time in wretchedness in alms-houses or in jails, or in wandering about exposed not only to want and to the inclemencies of the seasons, but to the insults and the abuse of the thoughtless and the vicious. This, together with the relief an asylum gives to the friends of the incurably insane, from watchful nights, and from incessant noise and disturbance, and in many cases from the most anxious fears for the safety of their unfortunate relatives, leads us to regard such institutions, irrespective of the cures they effect, as among the most valuable."

The management of the Asylum is not particularized in the present report, it having been fully noticed in the last. The subjects treated of by Dr. B. are *The Farm and Labor; Religious Worship; Schools and Diet; The Prevention of Insanity; Neglect of the Study of Insanity by Physicians; Predisposing Causes of Insanity; Exciting Causes, and Asylums for Idiots.*

Dr. B. is of opinion that much may be done for the improvement and comfort of idiots; that many, instead of being a burden and expense to the community, may be so improved as to engage in useful employments, and to support themselves; and also to participate in the enjoyments of sanity. "Idiots," says Dr. B., "exhibit different degrees of intelligence. While some possess no more knowledge or capacity of acquiring it than the brutes, others exhibit considerable intelligence or aptitude to acquire particular kinds of knowledge. They are capable of learning trades and to read, and of being taught music. Some are particularly interesting from the simplicity of their manners, quick observation and witty remarks, as we know from the history of those times, when it was common to have such at the court of kings." Schools and asylums have been established in other countries for the benefit of idiots, and Dr. B. recommends that similar institutions should be opened in this State by legislative authority, for the same benevolent purposes. The subject is undoubtedly one that must commend itself to every patriot, philanthropist and Christian.

ART. XIX.—*Fourth Annual Report to the Legislature, relating to the Registry and Return of Births, Deaths and Marriages, in Massachusetts.* For the year ending April 30th, 1845. By JOHN G. PALFRY, Secretary to the Commonwealth, with a letter to the Secretary, by LEMUEL SHATTUCK, Esq. Pp. 106.

"THE true greatness of a State," says Lord Bacon, "consisteth essentially in population and breed of men." If there is any one subject which pre-eminently demands the attention and solicitude of statesmen and

legislatures, as well as of individuals, it is that which relates to the physical condition, in connection with the general welfare, health and longevity, of all the members of the community. When regarded in its most comprehensive aspect, its importance will be found second to none in relation to the physical and mental happiness of man. It affects his health and longevity. It involves the intellectual and corporeal power, and consequently the *capacity for the production and progression* in *every* art or science in which a human being can engage, of individuals, families, communities, and states.

With a sound and healthy body, and surrounded only by these agencies and circumstances which the God of nature has given him in abundance and purity, to sustain and invigorate him by their natural and unalloyed powers, man does indeed feel the "fullness of his strength;" and the very labor which he delights to perform, and from which he cannot restrain, becomes itself a pabulum of life, while it carries him onward to a nobler and higher condition of being.

But with a physical machinery deranged and enfeebled; encompassed by agencies which cannot afford him the means of vitality in their greatest purity and strength; breathing a vitiated atmosphere and scantily protected against the changes of climate and seasons; the energies of his mind become depressed and weakened, and he loses the ambition, or at least the power, of personal and political advancement, and progression in civilisation. It is vain to accumulate the treasures of science upon intellects whose physical powers are impaired and burdened with sickness or deficient energy, and the value of a brilliant genius is lost to a weak and laboring frame. And not to it only; for the genius and intellect of a man are given him not for his own purposes merely, and their good influences are not confined to himself; but they are given him for the benefit, advancement and glory of his fellow-creatures, and upon them falls the greatest portion of the loss.

The constrained gregariousness in which it is the habit and necessity of man now to live, gives rise to totally new conditions of his physical being, and developes laws and influences over his health and life, which were before unknown or disregarded. This is not the case merely in those places in which we find him collected in the greatest numbers and density, as in large cities. Were this the case, all sanitary regulations might safely be left to the discretion of the minor local governments, to be guided and enforced by circumstances as they arise. But in the more sparsely settled localities, there are numerous general causes of sickness and mortality prevailing, affecting the condition of families and individuals, and demanding, equally with those of denser districts, the supervision of legislation.

The relation which the physical condition of the citizens of a State bears to its advancement in wealth and civilisation has been commented upon and illustrated by several writers, and the aphorism with which we have commenced this article has been fully proved, in argument, if not in fact and example. That the improvement of the "breed of man" as a principal means of obtaining "the true greatness of a State," has been seriously and almost wholly neglected, requires scarcely any proof; one has but to cast his eyes abroad over the community to see the inferiority of the breed of his neighbors, and the tomb-stones of the adjacent graveyard will tell the mournful tale of the premature mortality of three quarters of the human family within his own circle of habitation.

"This subject has merits which should command the attention of the statesman and political economist. All investments to preserve or increase the public health, would be reimbursed many fold, in an increased capacity for production. One of the most important items in a nation's wealth consists in the healthfulness and vigor enjoyed by its people. All agriculturists and manufacturers must feel the force of this remark in regard to their own workmen; and they would feel it still more, if they were obliged at their own expense to support those workmen during all periods of sickness or incapacity to labor; and this is the relation in which the State stands to its citizens. It has been said by some writers on political economy, that from one-seventh to one-eighth of all the wealth of a country originates in the *labor of each year*. Hence, if any nation or community should cease from production for seven or eight years, the whole of its wealth,—houses, lands, goods, money—would be consumed. What a forcible idea of the value of labor is presented by this fact! Yet, what a sick workman or operative would be to a capitalist who was obliged to maintain him, a sick citizen is to the republic. Every sick man, every man rendered unserviceable by general debility, or specific ailment, must be subtracted from a nation's available resources. He not only adds nothing to the common stock, but he draws his subsistence in some form—and often, too, a very expensive subsistence—from the storehouse which the industry of others has filled."*

And are not the laws which regulate, and the influences which control, the health, and lives, and destinies of men, fit objects for inquiry by the government?

The State of New York has expended nearly half a million of dollars in the laudable work of a natural history survey, by which it has ascertained how many kinds of beasts, birds, and fishes, roam or fly over its hills and valleys, or swim in its waters; a careful census has been made of the varieties of butterflies, reptiles, &c., within its boundaries, and of the different genera of its plants; developments have been made of the character of its soil in the various sections; of the structure of its foundation down deep as human ken could reach; and in every other department the ablest minds, and most skilful experimentalists and philosophers have been employed. The result is a work which would be an honor to any country. Again, there are individuals and associations, laboring with indefatigable zeal in the departments of agriculture and mechanics, trying how much can possibly be produced from a square yard of soil, or what amount of human labor may be dispensed with by invention after invention of new machines. Others again are investigating the important subjects of where and how sheep may be best and cheapest reared, hogs fattened, and cattle maintained and improved. Such labors are all commendable and highly useful, "but," asks Mr. Shattuck, in reference to his own State, and we may apply the question more forcibly to our own, "where is the sanitary map, which points out the healthy and unhealthy localities in the State, which will reveal to our people where and how *human life* can best be sustained and longest continued, and where and how human energy and productive power can be best brought to bear upon the culture and development of the sources of wealth in the State? Have we not said by such legislation that our cattle and our hogs are of more value than the lives of ourselves and our children? Have we not extended to the brute, whose worth is measured by dollars and cents, a species of legislation which has been withheld from man, who is

* Horace Mann, Sixth Annual Report of the Board of Education, Massachusetts.

of immeasurable value? When compared to investigations into the physical condition of man, all other investigations dwindle into insignificance."

Our last State census, not yet published, will give us an enumeration of the citizens, with the relative number of the whites and blacks, the deaf, dumb, blind and insane—as well as the value of the agricultural products, the horses, cattle, lands, and tenements, but for the "true greatness of the State," for the health, life, and longevity of the people, there is no care, no legislation.

Again we ask, is there no necessity for such legislation? Is the condition of the people so good that government need exercise no supervision over it? Are the laws of life and health so well established, and a knowledge of them so generally diffused, as to render any further investigation of them unnecessary? Let a few facts answer.

When the law for Registration of Deaths was established in England, Liverpool was generally believed to be one of the healthiest towns of the kingdom—but it was proved to be almost the worst. As soon as the startling fact was announced that her inhabitants were dying faster and earlier than in any other quarter, an inquiry was instituted into the causes of the mortality. A sanitary survey was made which soon brought them to the light, and now, after the application of the proper remedies, the disgrace is wiped from her escutcheon, and the "breed" and condition of her population, together with their health, lives, and happiness, are preserved and improved. Though it is with humbled pride, truth compels us to lay before the people the following statement, from one of the most eminent vital statists of England, contained in a letter to a friend in New York. By this it will be seen that the condition of our own people, so generally believed to be equal or superior to those of other countries in the matter of their health and long life, has been totally misapprehended, and that the inhabitants of Liverpool, bad as it was, were not more deceived than we now are. He says—

"In a communication from the American Statistical Society at Boston, they say it is necessary to take some steps to warn the community against falling into the evils which afflict the old towns of England. On summing up the returns which they have sent me, I find that they *have* fallen into those evils deeper than any whole communities in England, bad as I have shown them to be. *In Boston, the average duration of life appears to be lower than in Liverpool.* The town of Lowell, *which is praised for its excellent health, presents the most ghastly results of any I have met with.* One year the average age of death appears to have been as low as sixteen,—in the worst town in England I have met with, it is twenty for the whole community. In Liverpool, the average age of death after twenty is forty-eight. In Lowell it is in one year as low as thirty-seven. The infantile slaughter is worse even than in Manchester—as bad as in its cellars."

Thus it seems, while, as a people, we have lulled ourselves into a fancied security, and thought ourselves exempt from the devastation of life and strength, which afflicts our transatlantic neighbors, at the same time that we have done nothing to ascertain whether our hypothesis was real or supposititious, we are even in worse condition than their worst. While straining every thought and muscle to increase our stock of wealth, the heavy chains of disease and premature death are dragging us unconsciously backward; we are toiling to ascend to the hill-top of refinement and civilisation, but continually retarded, or forced back, Sisyphus-like,

by the weight of our burden; or like Prometheus, striving to precede and outwit the world, with the vulture unceasingly gnawing at our vitals, which "are never diminished though continually devoured."

There are many who, no doubt, will be disposed to question the correctness of the statements of the extract just given, and will attempt their refutation by pointing to the clear blue skies, the more invigorating atmosphere, the better and more abundant food, the greater freedom from oppression and taxation, the rapid increase of population, the greater liberty of body and mind, under which our citizens live and prosper.

But for our own State, we answer, there are *no statistics* to show how long we live, whether a less or greater time than the inhabitants of England or France; nor to show what proportion of our increase of population is domestic or foreign manufacture; nor what may be the expectation of life of different classes and trades; nor the relative duration of life in city or country. The few returns which have been made by our more enterprising neighbors in Massachusetts, have been used, as we have just seen, to the disadvantage of their name and condition. But how stands the Empire State? Is she, in this respect, really entitled to her motto "Excelsior." For aught we know, her people may be in as bad, if not worse, condition than others. We want statistics to prove, either that she has a better "population and breed of men"—or if she has a worse, we wish to know it, that the means may be adopted for their improvement; and that thus she may be sure of possessing the elements of "true greatness."

The means by which the information necessary for these great purposes is to be obtained, are—

1st. A sanitary survey for the State, upon principles and arrangements similar to those upon which the Natural History survey was based.

2d. A registration of births, marriages, and deaths for the State.

The first, if undertaken by capable and judicious men, would occupy time proportionate to their facilities and necessities of inquiry and observation, and might, doubtless, be completed in less time than was required for the survey of Natural History.

The second must necessarily be continual, as the progression and fluctuations of the race call for continual observation and study.

Time and space prohibit elucidation here, *in extenso*, of the particular advantages that would result from a careful and complete collection of facts, and a full and judicious deduction of inferences therefrom, under such legislative enactments as are herein contemplated.

The commonwealth of Massachusetts has the honor of being the first of the United States to profit by the example of the "Father Land," where this kind of work has been carried on for many years back, with the most beneficial and important results.

There seems, however, some imperfection in the law of Massachusetts, as, though this is the fourth Annual Report, there is a supposed deficit of one half the number of births and deaths which actually took place in the State, and of three quarters of the marriages.

Various reasons are stated by the returning officers, to account for this deficiency. The most important deficiency, however, relates to the city of Boston, which makes no return whatever, which "is particularly to be regretted, not only because it contains a seventh or eighth part of the population of the commonwealth, but because the peculiarity of the position and occupation of its citizens is connected with questions of spe-

cial importance in relation to vital statistics." In view of these omissions, it is unnecessary, as it would be unprofitable here, to go into any examination of the actual or relative number returned.

We have some amusing reasons given by the returning officers (town clerks), in apology for the meager numbers sent in. One says:—

"I have solicited the clergymen for a list of marriages, the sextons for an account of deaths, and the school committee for births, more frequently and with more earnestness, than good manners would always justify; and when the information comes, it is often contained on a small scrap of paper, sometimes without dates, and always without method or order."

Another:—

"I find in such cases, they almost always recollect the names of their grandfathers, but do not know whether they ever had any grandmothers or not.

"But one returned, the committee thinking the trouble of ascertaining too much for the pay.

"The clerk perambulated the town to obtain the materials of his return, and states that it would be cheaper to pay the fine of $10, than make the requisite returns and copies. * * * 'We have no sexton in Granby.'

"It occurred to one, that very few members of the legislature who enacted this law, were ever *town clerks*, or ever intended to be. * * * The Reverend gentlemen do not make their returns as they should do."

The hope and expectation are, however, generally expressed, that as the importance of the law becomes more extensively understood, full returns will be readily made out and transmitted to head-quarters.

The Tables of the Report are five in number, viz:—

Table I.—1. Abstract of the Returns of the Births.
2. Births; plurality cases.
" II.—1. Abstract of the Returns of Marriages.
2. Conditions and Ages of Parties to Marriages.
" III.—1. Abstract of the Returns of Causes of Death.
2. Classification of the Causes of Death in the several counties.
3. Abstract of the Returns of the Causes of Deaths in the years 1842, 1843, 1844, 1845.
4. Stillborn Cases (whole number reported, 102).
" IV. Facts Illustrating the Influence of Occupation on Longevity.
" V. Facts Illustrating the Influence of Domestic Condition on Longevity.

The most interesting, as well as valuable part of the document before us, is the "Letter to the Secretary, from Lemuel Shattuck, Esq." Mr. S. has been for several years past a collector and student of vital statistics. He brings to the investigation of this important branch of science, a mind of high philosophic character, a good general knowledge of human physiology, plenty of patience, and a correct appreciation of the bearings of the subject upon the interests and future condition of mankind. His letter of 40 pages is written in a condensed, yet clear style, and is in part devoted to an exhibition of the necessity for the enactment of laws, founded upon the facts and philosophy of vital statistics, for the

preservation of public health and life, against the influences which are constantly at work impairing the one and shortening the other, if the people would improve their condition, and elevate themselves in the scale of civilisation and prosperity.

He has made an excellent argument on the subject by appropriate quotations, and by illustrations from the statistical returns of his own and other States, which we would commend to the attention of our legislators and statesmen. They will find in this letter a just and clear view of the bearings and valuable considerations connected with this too much neglected science, one of the dearest to humanity.

We are compelled to close our notice of the report and the subject, by referring to a few of the tables of summaries prepared by Mr. Shattuck.

He divides the whole community into three great classes. 1. The dependent class; 2. The productive class; 3. The aged class. The first consists of all under 15 years; the second, those from 15 to 60; and the third, those over 60. "The first and third classes combined may be called the *burdensome class*, and the other the *productive class*. The word *productive* is here used as applied to labor, in contradistinction from idleness or inability. One class are producers and the other consumers." "By the census of 1840, it appears that to every 10,000 persons there were

	Under 15.	15 *to* 60.	*Over* 60.
In Lowell, . . .	2,500	7,368	132
In Illinois, . . .	4,762	5,045	193

That is, while Lowell has 2,500 dependent upon every 7,368 for support, Illinois had 4,762 to 5,045 for support; showing from the ages alone, that the productive energies of the one more than doubled those of the other." This is not given as a fair comparison of the two *States* of Massachusetts and Illinois, for Lowell is well called a "remarkable instance." We quote it in illustration of the mode of comparing the energies and prosperity of one people with those of another. We are told that while the whole United States had 52.35 per cent. of the population of the productive class between 15 and 60, Massachusetts had 59.65 per cent., and England had 56.70; showing this State to be better situated than either, in this respect.

Proportion of Twin, Triplet, and Quadruplet Births.

In 1844,	there	was	1	case of	twin	birth to	123	cases of	birth.
" 1845,	"	"	1	"	"	"	129	"	"
" 1844,	"	"	1	"	triplet	"	7,261	"	"
" 1845,	"	"	1	"	"	"	15,444	"	"
" 1844,	"	"	1	"	quadruplet		15,523	"	"
" 1845,	"	"	no case of		"				

Of one of the tables of deaths (P.) it is remarked:

"One of the first ideas presented by this table, is the remarkable increase of infantile mortality within the four past years, being from 1157 to 1762, or 605; over 6 per cent. * * Are we aware that 1762 per cent. of all the deaths are of children under one year old? * * * * Such developments should arrest the serious attention of parents and all concerned, to ascertain and remove, if possible, the destructive agencies at work among us, on this class of human beings."

The following table, showing the influence of occupation upon longevity, is highly interesting:

Occupation.	1842.		1843.		1844.		1845.		Total.	
	No.	Age.	No.	Age.	No.	Age.	No.	Age.	No.	Age.
Farmers . . .	660	66	706	66	663	64	645	61	2673	64
Physicians . .	7	61	25	57	27	54	20	56	79	56
Clergymen . .	14	55	22	55	18	51	11	50	65	53
Lawyers . . .	12	56	5	53	7	44	7	49	31	51
Teachers . . .	9	38	16	37	14	33	21	29	60	34
Blacksmiths . .	34	57	35	59	31	50	45	52	145	54
Carpenters . .	95	62	99	48	76	51	79	52	349	53
Painters . . .	12	41	8	42	21	41	10	41	51	41
Shoemakers . .	104	46	113	48	110	39	134	41	461	43
Laborers . . .	193	49	171	51	158	50	208	49	735	49
Seamen . . .	176	39	199	43	128	37	131	42	634	42
Tailoresses . .					7	41	16	40	23	41
Dress Makers .					3	25	11	30	14	29

We are warned by the printer to stop writing—and we must bring our observations on this vitally important subject to a conclusion, for the present, by expressing our gratification in beholding in this, and the preceding documents from the same source, the evidence of the spread of intelligence and enlightened legislation, upon subjects pertaining to the true interests of man, and the ardent hope that the Empire, and every other State in the Union, will speedily follow the honorable example of their sister Massachusetts. J. H. G.

ART. XX.—*An Introductory Lecture, delivered by* GUNNING S. BEDFORD, M.D., Prof. of Midwifery and the Diseases of Women and Children, in the New York University Session, 1845–6. 8vo. Pp. 16.

PROFESSOR BEDFORD'S reputation as a writer and popular teacher, is too well known to need endorsement at our hands. In the present lecture, he discourses learnedly, feelingly, and *con amore*, of the duties, aims, and responsibilities of the practitioner of the obstetric art, and he depicts in his usual daguerreotype style, some painful scenes which he has been called to witness, which are calculated to make a durable impression upon the mind, and illustrate the importance of a perfect acquaintance with this department of our science. We regret that our limits do not allow of quotations, and a few extracts would only do injustice to the writer.

Foreign Medical Intelligence.

PART THIRD.

ANATOMY AND PHYSIOLOGY.

1. *Traumatic Paralysis of the Forearm.*—A man about 40 years of age, of a good constitution, robust, and of general good health, engaged as a clerk in a store for the sale of woollen goods, had occasion to raise a heavy piece of wet merino, weighing about 160 pounds. Suddenly he perceived that his right hand failed him and fell powerless to his side, whilst at the same time he experienced a numbing sensation in the forearm of the same side. Since then his hand and forearm have remained paralyzed. Some weeks have already elapsed, and, as yet, there has been no change whatever. On examination, the hand and fingers are found to be in a state of semi-flexion, capable of being slightly acted on by the flexor tendons, but it is wholly beyond the power of the patient to extend them. The skin of the hand and arm is insensible, no sensation being experienced by pinching, or inserting pins; this insensibility is limited strictly to that part of the arm below the elbow. The arm and such of its muscles as are inserted into the forearm, are in a perfectly healthy state, but all the muscles which go from the forearm to the wrist and fingers, are entirely paralyzed. The whole arm appears to be well developed, and presents no abnormal appearance other than a small soft protrusion or tumor about the middle and on the internal and anterior face of the forearm; it is about the size of a large egg, and is thought to be a hernial protrusion of one of the muscles, occasioned by a rupture of the anti-brachial aponeurosis, caused by the effort made in attempting to raise the weight, which gave rise to the accident. The patient complains of nothing; there is no pain at the back of the neck, at the shoulder, in the axilla, nor in the arm—indeed nowhere along the course of the brachial plexus. Monsieur Blandin, being unable to account for this paralysis in a satisfactory manner, has repeatedly questioned and cross-examined the patient as to all the circumstances attending his accident, but as yet has succeeded in obtaining no other information than that already communicated. For fifteen days, since his admission to the Hôtel Dieu, large blisters have been repeatedly applied around the elbow and to the upper part of the forearm. Strychnine has been applied to these blistered surfaces, but no good has up to the present time ensued from their use. These negative results, and the dead-like condition of the forearm, lead to the conclusion that not much is to be expected from those already resorted to, and similar applications. This is one of the unfortunate cases in which medicine appears to be fruitless, and requires for the elucidation of its true character, that new experiments and researches should be made. M. Blandin states that this is the first time that he has met with this species of paralysis—a declaration that is sufficient to authorize the conclusion that it is exceedingly rare.—*Annales de Thérapeutique.*

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2. *Analysis of the Blood.*—We deem it in the highest degree useful for the practical physician to be able to analyze the blood and other animal fluids, if he expects to treat diseases successfully. The follow-

ing simple method of proceeding we take from a recent number of the British and Foreign Medical Review :—

1. A glass containing exactly 1000 grs. of water is filled with blood directly from the vein; a glass stopper fitting hermetically is then inserted (care being taken to remove all bubbles), and the specific gravity of the blood is ascertained. By continually shaking it the blood is kept fluid; it is then poured into a porcelain vessel, and evaporated, care being taken to wash the glass out with distilled water, and add the latter to the other. The quantity of solid residue is reduced to the proportions in 1000 grains of blood. 2. A glass two and a half ounce measure, is filled with blood immediately after the preceding, covered and set aside for eighteen hours. The clot is then carefully separated from the serum, and the weight of both ascertained. 3. The clot is now to be pressed through a linen cloth four inches square, and first the fibrin, then the fluid cruor collected. Each is thoroughly washed, freed from moisture, and weighed; they are then carefully dried and again weighed. The results are to be reduced to the proportion in 1000 grains of blood. 4. The serum and clot are to be placed in a glass containing 360 grs. of distilled water, and their specific gravity noted, then 250 grs. of each at the same temperature are to be dried so long as they lose weight; the weight of the residuum is then to be reduced to the proportion in 1000 grains. There is a loss of weight by pressure through the linen, but as this will happen in the same proportion in all instances, the general results are correct.

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3. *Ætiology of Diseases of the Heart.*—Dr. Flogel thinks that among the determining causes of cardiac disease, immoderate, long continued, or even only momentary bodily efforts, especially of the muscles of respiration, of such kinds as interfere with the free performance of respiration, have not received the attention their importance deserves. He gives five cases in which the patients referred their cardiac symptoms to muscular efforts, and insists on the importance of these facts in reference to prophylaxis.—*Ed. Med. and Surg. Journal.*

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4. *The Phenomena Attending the Inflammatory Action of Membranes.*—The capillaries are all on one side of the membrane, and yet the serum and lymph are on the other; the capillary vessels in healthy action have no power in themselves of throwing out any of their contents. They do not secrete in virtue of any power inherent in themselves. Do they acquire this power during inflammation? Or will any of the hypotheses of effusion account for the lymph and serum being on the free surface of the serous membranes, and so little, if any, in the subserous textures? I do not see how we can, in the present state of the science, account for phenomena of this kind, by referring them to actions of the extreme vessels. We must look for an explanation, I am inclined to believe, in a disturbance of the forces which naturally exist in the extra-vascular portions of the inflamed part.—*Goodsir.*

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5. *Bright's Disease of the Kidney.*—In a recent communication to the Medico-Chirurgical Society of London, Dr. Johnson has attempted to show that an increase of the fat globules, existing in the cells within the uriniferous tubes, is the morbid change which occurs in Bright's disease; that this change is the result of constitutional causes; and that this deposit is *the cause*, and not *the result*, of the congestion of the kidney, which finally leads to the presence of albumen in the urine. Drs. Quain and Williams, however, maintain that it is the deposit of a badly organizable and cacoplastic matter in the cortical substance and within the tubes of the kidney. This deposit generally takes place in an unhealthy system as the result of congestion, produced either mechanically as by diseased heart, or by some irregularity in the function of the skin. The same effect may be produced by the circulation of stimulants, as alcohol, with the blood. Those conditions, diseased heart, perspiration suppressed by

cold, or by experimentally coating the surface with substances, impermeable to this secretion, and intemperate habits, are constantly found associated with albuminaria.

According to Dr. Quain, whose opportunities of observation have been great, the deposits in the kidney assume the following characters:—1. The *simple enlarged mottled kidney*, the surface of which, on removing the capsule, is generally smooth. In this, the deposit consists of simple nucleated cells more or less mixed with granular matter. This form is analogous to the hypertrophied mottled liver. 2. The truly *granular or atrophied kidney*, the surface of which is rough, irregular, and generally of a pale reddish color. In this form, the filamentous tissue, contracted in its nature, as such formations always are, exceeds the quantity of the cellular or granular matter. This latter sometimes extends to the convoluted extremities of the tubes. The contractile tissue surrounding the tubes and bodies can be readily supposed to give rise to the rough or granular formation. This form resembles the hob-nail, or gin-liver. 3. The *large, flabby, fatty-looking kidney*. In this, the quantity of fat exceeds the amount of the other matters present. The fat is present in the substance, and probably in the tubes themselves. This resembles the fatty degeneration of the liver. These are the *three principal forms* this disease assumes, but there may be many minor modifications of these produced by the relative proportions in which these deposits are present.

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6. *New Gland in the interior of the tip of the Tongue.*—A German physician, Dr. Nühn, has lately discovered and described a gland in the interior of the tongue. It may easily be seen by removing the mucous membrane from a slightly elevated elongated oval space, which is always seen about two lines from the median line, on the under surface of the apex of the tongue; this exposes a layer of longitudinal muscular fibres; we then reflect, or remove some of the fibres, which form part of the inferior lingualis, and the anterior fibres of the stylo-glossus, when the gland is seen just under the canine artery, outside the expanding branches of the lingual (5th) nerve, just anterior to the edge of the hypoglossus. The gland measures from seven to ten lines in length, from three to four and a half in breadth, and from one and a half to two and a half in thickness, agreeing in the structure and general aspect with the labial, lingual, and other similar glands. It has many ducts, which open through the mucous membrane over it, by irregularly placed orifices, each of which is surrounded by a slightly elevated ring. It is believed to be a mucous gland, and has been found in no other animals than man, and the orang.

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MEDICAL PATHOLOGY AND PRACTICAL MEDICINE.

7. *Pathological Appearances in a remarkable case of Phlegmasia Dolens.* By M. Barnetche, Bourdeaux.—After giving the history of a case attended with some remarkable symptoms, Dr. B. details the following post-mortem appearances, which we regard as very valuable, being, so far as we know, the most minute of any on record. The patient was confined on the 2d December, 1844, and died on the 23d of the same month.

"Dissection. *External appearance.*—The body, opened eighteen hours after death, exhaled a strong fetid odor of animal matter in a state of decomposition. The inferior extremities were much swollen and infiltrated. There was gangrenous ulceration over the sacrum; the bone was of a dark grey color, and filled with pus to the depth of two centimetres. On dissecting the cutis from the right limb, the cellular tissue was found attenuated, of a greyish color, soaked in liquid, and dissolved as it were in serum. The popliteal and inguinal glands were enlarged and hard, of a whitish-grey color, and several contained pus; the mesenteric glands were likewise found enlarged, some in a state of suppuration. The left limb was nearly œdematous; no pus was found in the cellular tissue, nor were the lymphatic glands enlarged. There was evident hardness and redness of the right axillary glands.

"*Cranium.*—The brain, cerebellum, medulla oblongata, corpora striata, and thalami, were all in a normal state. There was no serum in the ventricles, but a small quantity of a citron-yellow fluid was found between the pia mater and arachnoid, streaked here and there with blood, and small quantities of a fluid pus. The optic nerve, on emerging from the thalami, exhibited no change of color, but its density was remarkable, creaking under the scissors; there was no infiltration of serum in its sheath. The mucous membrane of the palpebræ and globe of the eye had shrunk; it was of a yellow color, and the fluid which exuded appeared to be contained in separate cells, but communicating with each other; several layers were removed by means of scissors. The globe of the eye was hard, and with difficulty compressed; a dirty yellow color was reflected through the transparent cornea, now become dull; on opening it with caution, purulent matter escaped from the anterior chamber, the vitreous humor being replaced by a considerable quantity of greenish pus; neither the color nor transparency of the lens had undergone any alteration; the same may be said of the fatty cushion on which the globe of the eye rests.

"*Chest.*—Two cavities, of the size of a centimetre (five lines) each, were found in the superior lobe of the right lung; they contained pure pus; at a short distance from these, were two globular bodies, of a cretaceous nature, something like tubercle; there was well-marked engorgement of the posterior part of this lobe; as a whole, it was of a deep red color, and when cut into slices it sunk in water. The inferior lobe of the left lung was almost completely hepatised. There was a small quantity of serum in the left pleura. The heart and pericardium were natural.

"*Abdomen.*—The peritoneal coat of the intestines was slightly thickened, especially towards the lower end of the ileum, and over the cœcum, which was much injected. Several red spots were scattered here and there, and in the points corresponding to these, the mucous membrane was soft and easily detached, leaving the walls of the intestine very thin and transparent. The stomach, kidneys, and bladder were natural. Spleen somewhat enlarged, and of a deep red color; over its surface were scattered patches of a greyish tint; it was soft, and easily broke down under the fingers. Liver large and very dense. On the superior surface of the right lobe, a deep brown patch was discovered, under which there lay a clot of blood, whose diameter in all directions was about half an inch. No other alteration was perceived in the organ.

"*Uterus.*—The uterus was of the normal size, but soft to the touch. The ovarian tubes were red: the ovaries themselves tumefied, and softened, and covered with a layer of pus, but without any notable alteration in their substance. On examining the interior of the uterus, its surface was found coated with a species of pap, consisting of decomposed blood and pus. This was also found in several of the veins or sinuses. The tissue of the uterus had lost all its consistency, and, by moderate pressure, gave forth a sanious serosity.

"*Articulations.*—The pubic and sacro-iliac articulations were healthy.

"*Circulatory Apparatus.*—Heart and arteries normal.

"*Veins.*—A large clot of blood, found in the right auricle, extended upwards into the vena cava superior, and downwards into the vena cava inferior. Its total length was about 16 centimetres (5 inches). A second clot was found in the inferior cava, which extended into the primitive iliac veins, and produced obli-

teration in the latter, to the extent of about a foot (30 centimetres). Another clot was found in the right popliteal vein, containing a thick layer of pus in its superior portion; these clots obstructed the calibre of the veins, and, in some points, adhered to them. The internal membrane was, as it were, detached, and adhered to the cloth employed to wipe the surface. The veins of the left limb appeared healthy, as did also those going to the globe of the eye."—*An. de Ther.*

8. *Turpentine in Purpura Hemorrhagica.*—The *Edinburgh Monthly Journal of Medical Science*, for December, 1845, gives the history of two very interesting cases of purpura treated by large doses of turpentine. Dr. Neligan states that "it acts as a powerful cathartic, also possesses the property of checking hemorrhage, depending on an atonic state of the smaller blood-vessels, owing, probably, to its powers as a diffusible stimulant. In consequence of those views, I employed this remedy in the four cases that afterwards came under my care while in charge of the district, and they all recovered. I prescribed the oil both in the form of draught and of enema; the usual dose for adults being from one ounce to an ounce and a half, and for children from two drachms to half an ounce, generally in combination with castor oil, to render its cathartic action more certain.

"Since that time I have employed oil of turpentine in every case of purpura which has been under my care, and its use has been invariably attended with beneficial results."

9. "*On the danger of using certain washes in cases of Ulceration of the Cornea.* By Dr. Cunier.—We have already directed the attention of practitioners to this matter, by pointing out the serious consequences which may ensue from indulging in the common practice of uniting laudanum with the metallic salts of lead, silver, zinc, copper, cadmium, &c., in preparing collyria. From such combination, says the skilful ophthalmologist of Brussels, an insoluble meconate is precipitated, which, by the shaking of the wash when it is about to be used, may be brought into contact with the eye, and become incrusted in the ulceration of the cornea. The result of some recent experiments instituted by Dr. Cunier, at the request of M. Boyer, established beyond doubt the fact, that this decomposition does in reality take place, and that the accidents likely to arise from it are such as were previously indicated by the experiments. That, in fact, the precipitate formed by the addition of laudanum to washes made with the sulphates of zinc, copper and cadmium, is less abundant than in those made with the acetate of lead or nitrate of silver; nevertheless, in the quantity in which it is produced, it suffices to cause incrustations in the membrane, when used for ulcerations of the cornea.

"In concluding his article, Dr. Cunier indicates a very simple means for avoiding this difficulty. It consists in taking the precaution, when ordering these collyria, to combine the metallic salt with a salt of morphia *of the same acid;* for instance, the acetate of morphia with the metallic acetates; the sulphate of morphia with the metallic sulphates, &c., &c. In this way the same clinical result is obtained, without the patient being exposed to the serious consequences which may arise from incrustations."—*Gazette Médicale de Paris.*

10. *Contagiousness of Puerperal Fever.*—In the Edinburgh Monthly Journal of Medical Science, for December last, there is a highly interesting paper by Dr. Peddie containing a series of cases illustrative of the *contagiousness of puerperal fever, and its intimate connection or association with erysipelatous and phlegmonous inflammation.* We have not room to give a detailed history of Dr. Peddie's cases; the animal poison producing the death of several puerperal females originated, as was supposed, in a case of *gangrenous erysipelas* (in a gentleman), spreading from sinuses surrounding the hip-joint, which took their origin from a mismanaged bubo, while attending the puerperal cases. Dr. Peddie also attended several cases of erysipelas, phlebitis, and peritonitis, which he supposed

had the same origin, viz. infection from the above malignant case of erysipelas. The conclusions to which Dr. P. arrives, and which we have no doubt are well founded, are the following:—

"1. That a specific virus, of an animal nature, is produced under certain circumstances, and in turn generates a peculiar form of fever in the puerperal state.

"2. That that virus frequently originates from erysipelatous inflammation.

"3. When once generated, it may be communicated from one lying-in patient to another with extraordinary virulence, quite independently of locality or epidemic influence, either by direct intercourse, or through the medium of a third person; and that this is more likely to happen where the predispositions of a weak body and a depressed mind exist.

"4. That it may also produce disease of various kinds in non-puerperal individuals,—more especially of an erysipelatous and phlebitic character.

"5. That the treatment of a contagious puerperal fever, whether directed by theoretical opinions, or the indications of physical signs, proves of little avail; but that if any theory is to be entertained respecting this malady, it should be, that something of a specific and morbific nature requires to be thrown out of the system, and the powers of life at the same time sustained; and that the practice which holds out the greatest prospect, small at best, of this being accomplished, is the adoption of the diaphoretic and stimulant plans, according to the stage of the disease.

"6. That the principal concern of the medical man should be (seeing that a cure is so rare), to adopt every conceivable precaution against the occurrence of a single case of the disease, or to lessen the risk of its propagation when once established in his practice. And to attain these ends, patients in childbed should either not be attended at the same period with cases of malignant or severe erysipelas, or that proper caution should be observed as to ablutions, more especially after contact with any discharge from such patients; and when a case of puerperal fever does occur,—lest it should be something more than sporadic,—chlorinated ablutions and change of garments is first required; and should a second case occur, it would be the safest plan for the practitioner to abandon the practice of midwifery for a time,—two or three weeks, if possible, and in the interim attempt, by removal into the country, warm baths, and other alterative and purifying means, and by the exposure of clothing to a free atmosphere or a high temperature, to rid himself of the subtle and powerful virus which adheres to him so tenaciously."

OBSTETRICS AND DISEASES OF FEMALES.

11. *Influence of Ergot on the Fœtus in Utero.*—Dr. Beatty has arrived at the following conclusions, in reference to the influence of ergot on the fœtus:—

"That the administration of ergot to a woman in labor is attended with danger to the child whenever a time sufficient for the absorption and transmission of its noxious properties elapses before the child is born. The *degree* of effect produced differs with the time that elapses between the exhibition of the dose and the birth of the child. Hence the ergot should never be given in any case where there is a likelihood of the labor lasting more than two hours after its administration, except when it may be employed to save the mother's life. Secondly,—if delivery is delayed two hours, we should resort to artificial assistance to save the life of the child."—*Dublin Journal.*

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12. "*Successful Ablation of the Womb.* By Dr. Michalowski.—A woman, twenty-two years of age, was delivered of her first child thirteen months since;

the accouchement was followed by very violent pains and a considerable hemorrhage. This bloody discharge was never wholly arrested, and, being accompanied by pain which resisted all treatment, was rapidly exhausting the patient.

"On being consulted in the case, Dr. Michalowski found in the vagina a pyriform tumor, painful on pressure, and which he at first supposed to be a polypus, for which he recommended *astringents* and cauterizations, with the acid nitrate of mercury. A subsequent and more careful examination led to the conclusion that it was an inverted uterus. The tumor was examined by means of a large glass speculum, when it was perceived that the blood oozed out through two small and regular apertures, opposite to one another, and corresponding exactly to the situation which the orifices of the fallopian tubes should occupy.

"The patient was terribly exhausted, and in imminent danger, and it was resolved to remove the tumor. The operation was performed on the 11th of May. A few hours after having been bled (with the view of producing a revulsive effect, and detracting the blood from the uterus), the patient was placed in the position usually selected for the application of the forceps. A museux tenaculum was inserted into the tumor, which was drawn down by moderate traction until projected beyond the vulva, when the section was made with great rapidity, and with a pair of curved scissors. The operation occasioned but little pain, and the hemorrhage was but trifling; a few hours after, the pulse, which had previously been as high as 120, was reduced to half that number. There was a sensation of coldness about the lower part of the abdomen, which it was very difficult to relieve with warm applications; and it did not cease altogether until the second day, when the pulse became again accelerated. It returned, however, to its usual rhythm about the eighth day, at which period it was considered safe to allow a little nourishment, and likewise a change of bed. Fifteen days after (the operation?), the patient went to the country. She revisited the operator, however, in December, at which period she appeared to be perfectly well, with the exception of some undecided pains about the loins and in the breast. On examining by the toucher, the neck was found to be so well cicatrized that it was almost impossible to ascertain at what point the section had been made. The tumor, when removed and divided longitudinally, presented, in a very small and anormal cavity, the foldings of the serous membrane, which, hard, thickened, and of a fibrous texture, were drawn together like the neck of a purse."—*Journal de la Societé de Médicine Pratique de Montpellier.*

MEDICAL CHEMISTRY, MATERIA MEDICA, AND PHARMACY.

13. "*Treatment of Baldness and Falling out of the Hair.*—Dr. Wilson recommends for falling out and loosening of the hair, to immerse the head in cold water, morning and night, to dry the hair thoroughly, and then brush the scalp until a warm glow is produced. In women with long hair, the scalp is to be brushed until redness and a warm glow are produced, then wet the roots of the hair with one of the following lotions: I. ℞. Vinegar of cantharides ℥ss., Eau de Cologne ℥ij., rose water ℥j., M.; or, II. Eau de Cologne ℥ij., tinct. cantharides ℥ss., oil of nutmegs ʒss., ol. lavender, ten drops, M.; III. ℞. Mezerion bark ℥j., horse-radish root ℥j., boiling distilled vinegar, 0ss. Let it stand for a week and strain. If the lotion produce smarting or tenderness, the brush may be laid aside, but if no sensation is occasioned, the brushing should be resumed, and a second application of the lotion. This treatment should be practised once or twice a day, or at intervals of a few days, according to the state of the scalp; namely, if tender, less; if insensible, more frequently. The same treatment will prove successful in *baldness;* which, if it happen in patches, the skin should be well brushed with a soft tooth-brush, dipped in distilled vinegar, morning and evening. If either of the above lotions proves too irritating to the skin, use it in smaller quantity and less frequently. No. III. may be diluted with more distilled vinegar. Oil should be used to keep the skin soft and pliant."—*On Healthy Skin, p.* 257.

14. *Sulphuret of Potassa.*—In the notice of Cazenave and Schedel, on "Diseases of the Skin," in our last number, the reviewer is made to say that the Editor, Dr. Bulkley, recommends the *sulphate of potassa* in some forms of *acne.* It should read the *sulphuret*, etc.

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15. *Singular Property of Albumen.*—"Professor Uunderlich remarked that any albuminous fluid loses the property of coagulating by heat, when the free alkali contained in it is neutralized by a few drops of nitric or muriatic acid. Even if a slight turbidness should result from the addition of the acid, this disappears on heating the liquid.

"*Remarks.*—We have observed a similar effect on the addition of acetic acid to an albuminous fluid; but it appeared to depend on the quantity of albumen present. It was long ago shown by Magendie, that when acetic acid was added to serum, the mixture might be heated without coagulation taking place. It merely became opaline; and on cooling, if not too dilute, it became solid; on again heating it, liquid."—*Med. Gaz., Aug.* 22, 1845.

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16. *Test for Sugar in Urine.*—"Liebig recommends the following:—Evaporate the urine to the consistence of syrup; treat with alcohol; then to the solution add an alcoholic solution of potash; if sugar be present, a white precipitate is formed, consisting of a compound of sugar and potash; wash this with alcohol and dissolve in water; thus a saccharine solution is formed, which may be examined in any way, and if required, the amount of sugar determined quantitatively."—*Lancet, Sept.* 6, 1845.

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17. *Oxide of Silver.*—This preparation, introduced into practice as a substitute for the *nitrate* by Dr. Lane, appears to be gaining in favor with the profession in Great Britain, and is undoubtedly a very useful article in some forms of dyspepsia, in chronic gastritis, and nervous irritability. There can be no doubt, however, that if its use is sufficiently protracted, it will, like the *nitrate*, blacken the skin, as it is taken into the circulation; and from its affinity for chlorine it must decompose the salts of chlorine in the blood, and be gradually deposited in the cutis in the form of an insoluble chloride, which will become black on exposure to the light. It probably differs from the *nitrate* in the latter being more readily absorbed, as well as more readily decomposed. The best form of administration is that of *pill*, combined with rhubarb and extract of conium. It may also be combined with inspissated ox-gall, or the extract of chamomile or gentian, with some essential oil, or with Castile soap or ipecacuanha. When genuine, the oxide of silver is of a light brown color. Sir James Eyre, however, recommends giving it suspended in some fluid, and states that although he has thus used it in several hundred cases he has as yet never blackened the skin, and heard of but two cases in which this result followed. We have lately had an opportunity of seeing a young lady whose entire surface is of a bronze or dull leaden hue, from having taken for more than a year about three grains per day of the nitrate of silver. She says that when her old acquaintance call on her, who are not acquainted with the cause of discoloration, they immediately get the idea that she must be cold or chilly, and advise her to warm herself. The appearance is much like the *blueness* caused by cold.

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18. "*Amygdalin and Emulsin.*—M. Morin, in a recent paper read before the Medical Society of the Canton of Geneva, Switzerland, states that *amygdalin*, a proximate principle, consisting of oxygen, hydrogen, carbon, and azote, is found only in the bitter almond, while *emulsin* is found both in the bitter and sweet almond. All mixtures of *amygdalin* and *emulsin* in water, give rise to the immediate formation of the essence of bitter almonds and prussic acid. The therapeutic properties of laurel-water depend upon its containing a quantity, unfortunately variable, of *prussic acid.* Liebig has proposed to substitute for the laurel-water an ounce of almond emulsion, mixed with 17 grains of amygdalin. M. Morin finds this proportion of amygdalin too strong, and proposes only 12 grains of that substance, and asserts that the mixture will yield 5½ grs.

of the essential oil of bitter almonds, and 5½ grs. of medicinal prussic acid, which is equivalent to 2-3ds of a grain of anhydrous prussic acid."—*Brit. & For. Rev. for Jan.*

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19. "*Extract of Tobacco in Neuralgia.*—*Extractum nicotianæ* will cure neuralgia so that it will not return again, and this with once using. I, but a few weeks ago, gave some of an aqueous solution of this extract to Mr. H— (aged between 30 and 40), who was on business at Hampstead, and who was then, and had long been, suffering from *tic douloureux*. His wife, whom I have since seen, informed me that he had only occasion to rub it on his face once, which relieved him, and from that time he had no return of it: and likewise that three or four persons, who were laboring under the same complaint, had also used it, and experienced similar relief. I have known it to cure toothache speedily with once rubbing on the face."—*Lancet, June* 28, 1845.

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20. *Capsules for Medicines.*—Capsules have recently been introduced for the administration of certain nauseous medicines, as castor oil, balsam copaiva, turpentine, etc. They are composed of animal membrane instead of *gelatine*, and are pliant and soft in the mouth, easy to swallow, and do not dissolve, so as to allow their contents to escape, until they have passed into the small intestines. We look upon them as highly useful and convenient, as they enable us to administer some articles, which without them would not be retained on the stomach.

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21. "*Treatment of Warts.*—The hydrochlorate of ammonia dissolved in water, and the hydrochlorate of lime, are the most certain means of destroying them; the process in both instances is very slow, and demands perseverance."—*Lancet.*

TOXICOLOGY.

22. *Poisoning by Strychnine.*—The following case of poisoning by Strychnine, we copy from the Edinburgh and London Surgical Journal, for Dec., 1845.

"Agnes French, aged 13. September 27, 1845. Has been in this house since the 16th instant, for eczema capitis, which is now nearly well.

"About half-past five P.M., swallowed three strychnia pills, which belonged to a paralytic patient in the same ward. Each pill contained a quarter grain of strychnia. She has been occasionally in the habit of taking medicines belonging to other patients. Twenty minutes after taking the pills, she said she felt a strange sensation in her head, and became almost immediately convulsed. The clerk was called, and visited her without loss of time. The following was her state. The arms were found extended and rigid, as also were all the muscles of her body, which was bent backwards at a considerable curve. Pupils were natural. Pulse was obscured from the rigidity of the muscles, but impulse of the heart was strong. Face was much flushed and lips livid. Breathing rapid and difficult, but larynx quite free,—spasms of diaphragm very marked. Every few minutes she had a fit of general convulsions. The mind was quite entire, and great fear and anxiety for relief were expressed.

"The cause at first being unknown, six ounces of blood were abstracted from the temporal artery. Cold lotions were applied to the head, and sinapisms to the extremities. Ten minutes after the symptoms began, the owner of the pills told the cause, when a scruple of zinc was immediately given, and large draughts of warm water, which were eagerly swallowed by the patient. No vomiting, however, was induced for about a quarter of an hour, although the fauces were tickled with a feather; and when the emetic operated, it acted very sparingly. All this time the opisthotonos and universal muscular twitchings had continued most violent; but now, during one of the ineffectual attempts to vomit, the rigidity of the muscles suddenly relaxed, and the spasmodic contractions ceased. The heart's impulse, previously strong, could not now be felt, and respiration was for the

time extinct. Her face, which, from the commencement of the attack, had continued deeply flushed, became gradually pale, from above downwards; her lips remaining livid. She was laid down, and seemed to recover slightly; her chest heaved slowly, and her heart beat feebly, and at long intervals. The flush also somewhat returned to the face, but with the exception of a few twitches, she had no recurrence of the spasms. The pupils were now dilated—the eyes fixed and turned upwards. The stomach pump was suggested, and immediately applied, but without any good effect. In a short time the respiration again ceased, and the heart could no longer be felt. The flush, which had been but slight, again descended and disappeared on the neck. Artificial respiration, and galvanism to the phrenic nerve, were now tried in vain. The patient was dead. Death took place at three-quarters past six P.M., little more than an hour after the poison had been swallowed, and in about three-quarters of an hour after it had produced its physiological effect.

Autopsy forty-four hours after death.—Face placid, abdomen tympanitic, much lividity of depending parts. Post-mortem rigidity of body in general moderate, but fingers and thumbs very livid, half-flexed, firm, and somewhat elastic. Integuments of scalp bled freely on being cut. Brain and its membranes quite natural, excepting turgescence of velum interpositum and choroid plexus. Spinal cord healthy,—its investing membranes rather vascular. Lungs much congested with venous blood. *Muscles of the heart quite stiff. The right ventricle was flattened into a sharp edge, and was quite empty. The left ventricle was also collapsed and empty. The auricles were in a similar condition.* The stomach contained a half-digested meal. Its mucous lining was pale and natural. Other viscera normal.

MISCELLANEA.

23. "*Pathology and Cure of Gout.*—Dr. Robertson states that the lithic acid diathesis presents itself under two forms, or rather has two modes of manifesting itself. In the one, the acid and its compounds escape in the urine; in the other, they are deposited in the tissues above named. The author, accordingly, seems to consider gout, or the gouty diathesis, essentially to consist in a morbid tendency to the deposition of uric acid or its combinations, and in a 'much disordered condition of the tissue in which it is formed.' Dr. Robertson thinks it not improbable that the acid, though, as constituting gouty concretions, or chalk stones, always found in a combined state, is originally deposited pure, and gradually takes soda from the blood. 'This,' he says, "would seem to explain the immediate deposition of lithic acid where it is formed, and likewise, that other alkalines besides soda are often found combined with it, although in comparatively small proportions, soda being the principal alkali of the system.' He elsewhere restates this view, and expresses it as his opinion that the irritation of the capillaries of the fibrous tissues, caused by 'the throwing down of crystalline particles of lithic acid, or of its compounds with alkali,' may be the true cause of gouty inflammation.

"'As to the treatment of gout,' says Dr. R., 'it will be found that the condition of the urine, judged of *pure*, has little to do in regulating or modifying it, however valuable it may sometimes be, when looked upon as subsidiary to other treatment.'

"Leeching, he observes, as well as the lancet, or cupping, are seldom of the slightest use in simple gout: they may do harm, but do no good. Purgatives and diaphoretics, he states, to be the evacuants to be chiefly depended on, and he might have added diuretics, a free action of the kidney being nearly as indispensable as a free action of the bowels. The hostility of Sydenham to purgatives both during the gouty paroxysm and the interval, is well known. The author does not entirely adopt on this subject the opinion of the great authority just named, neither do we. In a multitude of cases of gout, both during the paroxysms and at intervening periods, judicious regulation of the bowels, we do not say violent purging, is of evident use, as far as our observation extends. The purga-

tives must not, indeed, be cold and drastic, but warm, cordial, and what is called stomachic. The author justly discountenances the addition of narcotics to purgative medicines; the union is at once irrational, useless, and pernicious. Colchicum, so far as it is a narcotic, is to be excepted from this remark. We have not yet brought ourselves to regard it as a narcotic at all, but attribute the abatement of pain which it often affords, both in gout and rheumatism, to its setting suspended reactions free, as, for example, the biliary and the urinary. Its lowering of the heart's action we refer to the same cause.—*Brit. and For. Review.*

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24. *National Statues to Distinguished Medical Men in France.*—M. de Salvandy, the Minister of Public Instruction, in his speech before the Medical Congress, recently assembled at Paris, thus alluded to the honor about to be paid to some of the chief physicians of France:—

"Let me avail myself of this opportunity to inform you that one of your wishes has already been satisfied. The National Gallery of Versailles, which is dedicated to all the glories of France, would be incomplete were it not to contain the medical discoverers? At this very time, the brush of the painter, and the chisel of the sculptor are at work, engaged in reproducing the figures of your great men, a list of whom I myself presented to the illustrious monarch, who watches with solicitude over the welfare of the country. You will thus not only find in our national gallery, the portraits of the warriors who have defended or aggrandized France, but you will also find represented the features of your ancestors—of those who have honored France by their science, who have been your predecessors, who are your models, and who find among you so many imitators."

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25. *Animalcules in the Oil-tubes of the Skin.*—The following information may possibly be new to some of our readers:—

"The animalcule of the skin," says Mr. Wilson, "is found in the oil-tubes, whenever there exists any disposition to the unnatural accumulation of their contents; it is found in number varying from one or two to twenty, in the interior of the little grooved cylinder, which is squeezed out by pressure of the fingers; and this in an apparently perfect state of the health of the skin, if it can be said to be in health when its functions are performed in a torpid manner. Now, as in the majority of mankind, and certainly in all the inhabitants of cities and large towns, the skin is more or less torpid in its functions, so the presence of this animal in the skin is the rule, its absence the exception; I have found it in all ages, from youth to old age, more numerously, it is true, at the latter than the former period, and in great and remarkable numbers during sickness. Under these circumstances I see no other conclusion open, than to assume that it performs some beneficent purpose in the economy of the skin, that purpose being, according to my belief, the disintegration of the over-distended cells, and the stimulation of their tubes to perform their office more efficiently. In corroboration of this view, is the fact, that these little creatures increase in number when the vital powers decline, so that when the energies of the system are reduced by disease, and when the skin, participating in that reduction, is unable alone to fulfil its functions correctly, these little beings are produced to aid in the work."

The British and Foreign Review objects to the name *Entozoon Folliculorum*, by which Mr. Wilson designates this animal, and says that "it unites the characters of the higher annelida, or worm-tribe, of the lower arachnida or spider-tribe, and of the lower crustacea or crab-tribe, to such a degree, that it is yet doubtful which class ought to afford it a place. The investigator of the history of this parasite need certainly be in no lack of *subjects* for examination, for, strange to say, it is one of the most readily procurable of all living beings, especially in a town-population. Here, as elsewhere," continues the writer, "we see how nature manages to compensate one class for the exemption they may enjoy from the evils incident to another. The delicate town-bred lady of fashion, in ascending from her carriage, shrinks instinctively from the mass of rags, filth, and vermin, which is brought into contiguity with her precious person by some pertina-

cious beggar, ignorant all the while that her sebacious follicles give board and lodging to a host of parasites, whose number may equal that of the various kinds of 'small deer' that nestle in the matted hair and tattered garments of the fellow being whom she regards with so much loathing. 'Where ignorance is bliss, 'tis folly to be wise.'"

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26. *Potatoe Disease.*—From a series of researches, Dr. Ure has arrived at the following general results:

1st. That the disease consists in the conversion of a portion of the starch into saccharine matter, and of the albumen into a nauseous acrid principle, which, together, cause the expressed juice of the potatoes to putrify most rapidly; but that if a little yeast be mixed with the juice, a vigorous vinous fermentation is immediately commenced, and a proportion of alcohol formed in the course of two or three days, which, reckoned in proof spirits, is equivalent to five per cent. of saccharum in the potatoes. The spirit distilled from the fermented expressed juice, is by no means unpleasant in odor or taste; but that which is obtained from the macerated sliced potatoe liquor partakes, in these respects, somewhat of the rank and sickly flavor of the acrid principles above mentioned. "Did the feudal despotism of our excise laws," says the Lancet, "permit the inhabitants of this 'free' country to convert the diseased potatoes into spirit, using the residual cake, in which there can be nothing that is deleterious, as good 'conservative' food for cows and hogs, as much alcohol might be formed from them as would suffice for every purpose of medicine, pharmacy, the arts, and manufactures, leaving the corn for the sustenance of a temperate population."

2d. Dr. Ure considers the plan of dusting *slaked* lime over the potatoes, as prescribed by the three Irish commissioners, to be eminently objectionable. Such lime being already saturated with water, it cannot tend to keep the tubers dry, but, with a little moisture, would act powerfully in decomposing all vegetable and animal matter. When placed dry, in a perfectly dry atmosphere, potatoes may be preserved during any length of time; and this advantage can be readily obtained by piling them on a bed of brush-wood and straw, interspersing among the pile *unslaked* lime, coarsely bruised, and then covering them up well on the top and sides, from the external elements, either in a house or proper pit. Thus, an arid atmosphere being maintained around each potatoe, the vegetable will not be affected by the dry lime, which, also, during its slow spontaneous slaking under such circumstances, will disengage a genial warmth, to counteract the effects of the winter's cold. Dry lime does not corrode the vegetable matter; nay, it will not even combine with chlorine, the most energetic of chemical principles, although slaked lime does so most intensely.

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27. *Hospitals in the city of London.*—From the Medical Almanac, or Calendar of Medical Information, for the year 1844, we extract the following account of the London hospitals:—

"1. *The University College Hospital* (founded 1827), with 150 beds. 2. *King's College Hospital* (1841), with 130 beds. 3. *Guy's Hospital* (1721), 500 beds. 4. *St. Bartholomew's Hospital* (1539), 530 beds. Out-patients 30,000 annually. 5. *St. Thomas' Hospital* (1553), 500 beds. 30,000 patients annually. 6. *London Hospital* (1746), 320 beds. 1600 patients treated annually. 5503 accidents admitted, 1843. 7. *St. George's Hospital* (1733), 240 beds. 8. *Middlesex Hospital* (1745), 200 beds. 9. *Charing Cross Hospital* (1831), 150 beds. 10.

Westminster Hospital (1719), 200 beds. All these hospitals have medical schools connected them, with *museums*, dissecting rooms, and some of them, as St. Bartholomew's, have several houses within the hospital walls fitted up as a collegiate residence for a certain number of students. We thus have a grand total of 2640 beds, or hospital accommodations for this number of patients, who are all accessible to students, in a population of about 1,600,000.

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28. *Effect of warm Climate on Pulmonary Disease.*—It is a very fatal error for medical men to imagine that mild and warm climates can effect a cure of thoracic diseases. The cold and humidity, which generally are the determining causes of these effusions, doubtless aggravate their symptoms; but when the mischief has reached the second stage of its career, atmospheric heat almost always does harm instead of good, and very generally accelerates the fatal issue. It is the same with phthisis as with all chronic maladies that are attended with hypertrophy, or engorgement of the parenchymatous, or membranous viscera.—*Braithwaite.*

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29. *Mode of preventing Pitting in Small-pox.*—[Some years ago, Dr. Corrigan was struck by observing that no part but the face and hands ever bore marks of pitting from small-pox. As it could not depend upon anatomical structure, it occurred to him that it was dependent upon the natural moisture of the rest of the body keeping the skin soft until the new skin had had time to form under the pustule.]

"Acting on this idea, I determined, he remarks, to apply something over the entire face, which should completely protect the pustules, and prevent their exposure to irritation of any sort, until they were detached by the formation of new skin underneath. For this purpose, the application which suggested itself to me as likely to answer best was lead plaster, melted with as much almond oil as would allow the compound, when moderately heated, to be spread over the face with a camel-hair pencil, and, when dry, to form a perfect mask of consistent firmness. This application can only act beneficially on the principle of oiled-silk dressing, namely, preventing perspiration from the pustules, and preserving them free from irritation, until they become detached by the natural process of the formation of new skin underneath. This mask is to be allowed to remain on until the detachment of the scabs by the new skin brings it away with them. It looks, to be sure, very hideous for a few days; but I think that permanent personal deformity is cheaply purchased at the price of an ugly face for some short space of time. This is the remedy which, from extensive personal experience of its efficacy, I would be inclined to recommend for adoption. From the time the small-pox pustules are fully formed, coat them over with this application, and allow it to remain undisturbed until the formation of new skin underneath disturbs it. By adopting it, I can confidently promise you the gratification of sparing your patients the grievous amount of deformity which the numerous cicatrices of small-pox must otherwise inevitably produce."—*Northern Journal of Medicine*, July, 1845, p. 20.)

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30. *New Hospital in Paris. Bequest to the Paris Hospital Fund.*—The Municipal Council of Paris has appropriated *five millions of francs* for the building of a new Hospital, to be located in the Rue Saint Lazare, and to be called *L'Hôpital Louis Philippe*, after the King.

Madame de Lencquesaing, a wealthy lady, who recently died at Paris, has left 835,000 francs to the General Hospital Fund of that city. It has been decided that one of the wards of the new hospital, *Louis Philippe*, shall be furnished out of this sum, and be called "Pavillon et Salle Lencquesaing."—*Gazette Médicale de Paris.*

2.

American Intelligence and Editorial.

National Convention.—We have from time to time called the attention of the profession to the proposition of our State Medical Society for the assembling of a convention of medical men in the city of New York, in the month of May next, for the purpose of "elevating the standard of medical education in the United States;"—and we have done so from an honest conviction, that the *necessity* for such an effort actually existed, and that, in the language of the preamble of the resolution of the State Society—"there is no mode of accomplishing so desirable an object without concert of action on the part of the medical societies, colleges, and institutions of all the States." We know that this proposition of our State Society is made in good faith, with no sinister or unworthy objects in view; and that it is prompted by an ardent desire to advance our profession in learning, in honor, in dignity, and in usefulness; and we are happy to learn that it has been responded to from every part of the Union in the same frank and friendly spirit with which it was offered. To us, the assemblage of such a body of medical men, representing States and territories widely separated, seems to promise much good, and no harm to our common profession, and we flatter ourselves, that it will constitute a germ, from which a national organization will spring, calculated to confer lasting benefits upon medical science in our country for many years to come.

With these views and feelings, we regret to hear that some medical schools stand aloof, and propose to take no part in the proceedings of the proposed Convention; but we have scarcely a doubt that, upon further reflection, these institutions will yet appoint delegates. Let us for once at least, come together, from Maine to Texas, from the Atlantic Ocean to Oregon, and talk over our common wants, grievances, and prospects —see what is really needed to give our profession that proud eminence to which it ought to aspire;—what abuses are to be corrected—what reforms sought for—and in short, what matters "*cogitanda—excogitanda, agenda.*" We have but little expectation that a common standard of qualification for graduation can at present be fixed upon, for the different States of the Union; and even if such action were practicable, we doubt very much the policy of attempting it, as the actual condition and advantages of education, and the circumstances of the people, vary so greatly in different sections of our Union. But there are various other subjects, which would naturally come before such a convention, of scarcely less interest and importance, and we should hope, as already intimated, that a permanent National Society would grow out of it, which would, like the "British Association," meet annually, and at which, essays and reports on different branches of medicine would be read, and discussions held. The endemic and epidemic diseases of our country

might, in this way, be very successfully investigated, and results arrived at, of the highest interest and importance. In this manner, also, the climate of the United States could be investigated in a more thorough and systematic manner than it has ever yet been; and the laws of storms and meteorological changes could be established on the unerring basis of positive observations. In short, what could not a scientific body of men accomplish by united action, scattered as they are over every part of our extended territory? Shall not such concerted action be attempted?

We invite the attention of the profession to the following Report of the Committee of the New York State Medical Society, on the Proposed Convention, at its recent annual meeting, and hope it may be copied by our other medical periodicals:—

"The Committee appointed at the last Annual Meeting of the New York State Medical Society, to carry into effect a resolution passed at the same meeting inviting a National Medical Convention, in May next, would respectfully report as follows:—

"In the early part of last season the Committee, through their chairman, addressed a circular containing the preamble and resolutions of this society, with such comments as were deemed advisable, to all the State medical societies and medical colleges in the United States, as far as the existence of such societies and colleges could be ascertained. And in those States where neither State societies nor colleges existed, a circular was addressed to some leading member of the profession, inviting him to take measures for having his State represented in the proposed convention. Replies to these circulars and letters have been received from the following officers of medical societies, and colleges and private members of the profession, viz: Drs. W. W. Morris, of Dover, Delaware State; A. H. Buchanan, of Tennessee; W. P. Johnston, of Washington city; T. T. Hewson, R. M. Huston, and W. E. Thorne, of Philadelphia; Luther Ticknor, Connecticut; W. H. McKee, of North Carolina; E. H. Pearle, of Hanover; Paul F. Eve, of Georgia; J. H. Thompson, of New Jersey; J. W. Davis, of Indiana; A. Twitchell, of New Hampshire; John W. Draper, A. H. Stevens, Willard Parker, and C. A. Lee, of New York; J. Drake, of Ohio; Lawson, of Kentucky, and Carpenter, of Louisiana. And delegates have been freely pledged from societies and colleges in Maine, New Hampshire, Connecticut, New Jersey, Delaware, District of Columbia, South Carolina, Georgia, Mississippi, Louisiana, Tennessee, Kentucky, Ohio, Indiana, and New York. The medical schools of Philadelphia are the only ones from whom replies have been received, that decline sending delegates, and giving a hearty support to the proposed measure. Nearly every medical journal throughout the whole Union has not only favorably noticed, but warmly commended the holding of such a convention.

"There are some institutions from whom no replies have been received; but, from information obtained from other sources, there is good reason for believing that most if not all these will appoint delegates as soon as they are fully assured that the convention *will* be held. It will thus be seen that in far the larger part of our Union, the invitation of this society has met with a prompt and hearty response from the profession; and it is with much regret that we find even a few institutions declining to take any part in so important a movement. But when we consider the wide extent of our territory, and the great number of our institutions, all engaged, we should hope, in a generous rivalry with each other, the expression in favor of a convention is certainly more unanimous and more promising of good than could have been anticipated. Indeed the leading and influential members of the medical profession have long felt the necessity of some national action; some central point of influence around which the active and choice spirits of the whole profession can rally, and from which may be made to radiate an elevating, healthful, and nationalizing influence over the whole country.

"Hence, it only remains for this society to carry out the work it has so nobly commenced. The faculty in the New York University have very generously tendered to this society, the use of any room or rooms in their college edifice, that may be desired, for the convention to meet in. Some State societies and colleges have already appointed their delegates, while others have expressed a desire that the society would fix the number of delegates to be appointed by each society and college. For the purpose of furthering the objects in view, your committee would respectfully submit the following resolutions, viz:—

"1st. *Resolved*, That the preamble and resolutions passed by this society, at its annual session, Feb. 6th, 1845, did not contemplate the appointment of delegates to the National Convention, by county or merely local societies, in those States where delegates *are* appointed by a regularly organized *State* society.*

"2d. *Resolved*, That as some societies and colleges have already appointed their delegates, therefore, the number to be appointed by any one of these institutions should be left entirely to the discretion of the appointing body.

"3d. *Resolved*, That sixteen delegates be appointed to represent this society in the proposed National Convention, viz.: two from each senatorial district in the State.

"4th. *Resolved*, That this society accept the offer of the faculty in the New York University, respecting their rooms; and consequently that the members of said National Convention are invited to assemble in the college edifice of New York University, at 10 o'clock, A.M., on the *first Tuesday* in May next.

"5th. *Resolved*, That a committee of three be appointed to continue the efforts to further the objects of the proposed convention; and to exert all their influence to make it truly *National* in composition and action.

"6th. *Resolved*, That the above committee be authorized to invite the superintendents of lunatic asylums in the several States to attend the Convention.

"7th. *Resolved*, That the committee be further authorized and enjoined to send a copy of this report, together with the action of this society thereon, to all the medical journals in the United States, with a request that they publish the same, on or before the 1st of April next.

"W. S. Davis,
James McNaughton, } Committee.
"*Albany, Feb.* 3, 1846. Peter Van Buren,

"The above report and resolutions were unanimously adopted by the society. The same committee of three was re-appointed in answer to the 5th resolution. Two delegates were also appointed from each senatorial district in obedience to resolution 3d.

"W. S. Davis,
"C. A. Lee, M.D." Chairman of Committee."

We are again indebted to the chairman of the committee, Dr. Davis, of Binghampton, for the following communication, to which we also invite the attention of our readers:

"*The National Medical Convention.*—Mr. Editor,—As the proposed National Medical Convention will assemble before the May number of your valuable Journal will reach its numerous readers, we purpose, with your permission, to make some further observations on the subjects which will probably come before it. We do it, however, with a full sense of our inability to do justice to the task. We shall first consider what *ought* to be done; second, what *can* be done; and third, *how* it is to be accomplished.

"And first, the standard of primary or preparatory education should be greatly elevated; or rather, *a standard* should be fixed, for there is none now either in theory or in practice. In doing this, a thorough and practical knowledge of every

* We may remark that it appears to be the general wish that additional delegates should be chosen by all county societies, in this and other States, as being the truest mode of *representing the profession* throughout the Union. We presume no objections will be raised to such action.—*Ed. N.Y. Jour. Med.*

branch of *Natural Science*, and of the *English language*, at least, should be made an indispensable requisite before entering on the study of Medicine or Surgery.

"The necessity of this is too obvious to need a single argument; for how can the physician properly understand his business while ignorant of the physical world around him, from which arise nineteen-twentieths of all the causes of disease? How is he to appreciate the important influences of location, temperature, soil, climate, &c., without a knowledge of geology, mineralogy, meteorology, and the laws of caloric, light, electricity and attraction, or natural philosophy; and how is he to rightly understand the appearance, composition, properties, and above all, the mutual action of medicines upon each other, without a thorough knowledge of chemistry and botany? And yet how small a proportion of the whole number of medical students thoroughly understand any one of these branches of science. I know it is often said that much of this knowledge can be acquired by the student during his three years of pupilage, as a kind of recreation from his more direct medical studies. And if the whole study of medicine consists in a cursory examination of perhaps a single text-book on the several general divisions of medical science, and the attendance on one or two courses of lectures, then the saying may be in some measure true. But is not a previous knowledge of these subjects highly necessary to a correct and easy understanding of even the common medical text-books?—and in reference to collateral studies during the period of medical pupilage, what subjects can be more interesting or profitable than general and comparative anatomy, practical pharmacy, dietetics, the influences of climate, soil, occupation, &c., on health; all of which are absolutely necessary to an accomplished and successful physician. We should not only fix an honorable and just standard of primary education, but also bring about a more elevated conception of what constitutes a well educated physician.

"Second. We should elevate the business of *private teaching* to that position which its intrinsic importance demands.

"For a few observations illustrating this position, the reader is referred to the January number of your Journal. Organized as our medical colleges are at present, two-thirds, at least, of the whole term of medical studies must be spent under the care of a private preceptor. Hence there is no plainer proposition in the whole catalogue of truisms, than that the mental character, habits, and attainments of the student, will depend mainly on the manner in which this large portion of his time is spent. And yet, in a great majority of instances, there is no part of the student's time so totally perverted from the right objects as this. It should be the period for minute, patient, and practical researches into every branch of medical science.

"Human and comparative anatomy in the private dissecting room; chemistry in the laboratory; medical botany in the fields; and pathology, therapeutics, hygiene, &c., at the bed-side of his preceptor's patients, should form the chief objects of the student's attention at this period. And these should be pursued with a minuteness and degree of mental discipline to which most of those called *students* are total strangers. If this were done, the student would have a solid frame-work established, to which the medical college would serve as the finishing stroke of the artist, filling up, fixing, and polishing the whole. And a pupilage thus spent would lay a foundation on which future experience, reading, and observation, would not fail to rear a superstructure honorable to the profession and beneficial to humanity.

"Third. A more uniform standard of qualifications should be required of the candidates for medical honors.

"We have, in the State of New York alone, more than fifty separate and independent boards authorized to examine and license candidates to practise medicine and surgery; and the only requisition common to them all, is, that the candidate shall have studied a given length of time, arrived at a given age, and borne a good moral character. Now, every man of common sense would infer, just what abundant experience has proved, viz., that these fifty boards, comprising more than two hundred physicians, would adopt as many standards of qualification as there were different grades of intellect embraced in them.

"Not only so, but many of these boards bear the relation of rivals towards each other; and hence one dare not be too rigid in exacting high qualifications, through fear of driving students to another and rival board.

"Consequently, the tendency of the system is to produce an universal laxity in the examination of students, instead of a uniform rigidity and exactitude. The consequences are everywhere apparent, even to the most careless observer. To remedy this evil we think a *few* independent boards for examining and licensing candidates, should be substituted for the many we now have; and instead of relying entirely on a fixed term of study, we should agree on a fixed *amount* of medical, surgical, and scientific knowledge, as a minimum standard, beneath which no board should go in their examinations, without incurring the direct disapprobation of the whole profession.

"Fourth. We should devise some mode to stimulate the ambition, and arouse the energies of the profession to a higher state of intellectual activity and scientific inquiry. For just in proportion as the mind is engaged in an ardent and noble search after scientific truth; and higher, wider, and deeper professional attainments; in the same proportion will it be elevated above the low, grovelling propensities of our nature, and called off from the petty bickerings, jealousies, animosities, and intrigues, that often render a professional life little better than a perpetual broil, a continual retail of petty scandal, fit only for narrow minds, rendered narrower by avarice and bigotry. If this grand object could be accomplished, and the mass of our profession aroused to a just sense of the dignity and responsibility of their station; if the great whole, like the present few, could be brought to study and practise medicine, as an elevated and noble science, we should not long be mourning over the degraded state of the healing art, or lamenting over the prevalence of quackery.

"We believe that no enlightened physician will deny that the accomplishment of all these objects is imperiously demanded by the best interests of the whole profession, as well as the welfare of the community generally. And if they could be fully realized; if the standard of primary education could be fixed at a proper point; if the profession could be aroused to a just appreciation of the importance of private teaching, or the period of private pupilage, in fixing the mental character and habits of the student for future life; if the number of tribunals for examining and licensing candidates could be made fewer in number, more uniform in the standard of qualifications required, and more faithful as watchmen on the walls of our profession; and finally, if means could be adopted for diffusing a wider, more active, and more universal spirit of investigation through all our ranks; who would not say that the medical profession occupied a noble and ennobling position among the various avocations of life?

"But can these objects be accomplished?

"The timid, the half-educated, and the indifferent, will say nay; and so will many whose locks have become whitened with age, and whose years have been spent in unceasing exertions to promote the honor and welfare of the profession of their choice, but whose hands have grown heavy, and whose hearts have become wearied with unnumbered discouragements.

"But are any of the objects we have named in themselves impracticable, or beyond the reach of human effort? Certainly not. For they exhibit but the natural condition, the legitimate end, at which every enlightened member of our profession should aim. Let us look a moment at the condition and ability of the profession of medicine in this Union. Where do we find the profoundest scholars in general science—the highest ornaments of American literature—the soundest philosophers, and the most undaunted and indefatigable intellects—intellects indeed that defy the elements, and subject all nature, from the heavens above to the bowels of the earth beneath, to the stern crucible of their mental powers? Are they not to be found in the ranks of that profession whose origin dates far back in the history of by-gone ages, and whose object is the relief of human suffering? And can anything within the scope of human accomplishment withstand the united efforts of such a body of men? Assuredly not.

"For we care not what may be the apathy, the indifference, or the gross ignorance of the great mass of the medical profession in our country, we take the

bold ground, that there are resolute wills, and generous hearts, and minds enough on whose banner has been inscribed, in indelible characters, *Nil desperandum*, from their youth, to accomplish, by united action, anything that is desirable in the whole field of medicine. Ah! says one, we admit the truth of all this, and the full power of united action; but how to procure this union of effort is the very gist of the whole matter, the rock on which we split, the very barrier that renders fruitless all our efforts. And this leads us to our third and last proposition, viz.: How are these things to be accomplished?

"In answer to this, we say, just as we accomplish everything else that is worthy of the efforts of enlightened minds, viz., by well directed and persevering *action*. Was ever a great and important object, affecting the interests and feelings of thousands, accomplished in one day, or by one single effort? And if not, how inconsistent is that feeling, which I am sorry to find somewhat prevalent among us, which says, if we could only all unite so as to accomplish the object by a single stroke, it would be worth while to make the attempt; but here is a State, and there is an influential institution that will stand aloof, and therefore nothing can be done. Now such a feeling is not only unphilosophical, and therefore unworthy of an enlightened mind, but it is contrary to the very principles on which we daily act. It is saying that we will not take the first step for the accomplishment of an object of acknowledged magnitude and importance, because a greater or less number of subsequent steps will be necessary to complete the work. As we have already intimated, the first object to be accomplished, in the work before us, is to bring about a united effort. And to do this, old prejudices must be removed, conflicting sentiments harmonize, and congenial spirits made to act in concert. There is no way to accomplish this but to bring men together, cause them to take each other by the hand, look each other in the face, and by free and enlightened discussion, give the principles of truth and righteousness free scope, in their operations on the human mind. Let intelligent and liberal minds, from Maine and Louisiana, from Illinois and Georgia, meet on one common platform, and how long will petty jealousies, and narrow feelings of selfishness, separate them in feeling and action? The first object, then, is to bring the leading members of our profession together, from every section of the Union; and the second, to agree on some universal standard of *primary qualifications*, about which I think there could be but one opinion. The next step is to elevate and systematize the work of private instruction in medicine. For, as we have said in another place, so long as the student spends, at *most*, scarcely one-third of the whole period of his professional study within the halls of a medical college, we care not if our colleges are made to rival the most celebrated schools of Paris or Edinburgh; while the remaining two-thirds of his time is spent in mere desultory, and almost random reading, without regard to strict mental discipline, and habits of minute and patient investigation, we shall totally fail to bring about that elevation of the standard of medical science which we so ardently desire. But the question recurs, *how* shall we accomplish this? We answer, first, by an appeal to the profession, in such terms as will arouse the attention, and produce a healthy and active public sentiment among us.

"It is active public sentiment that forms the controlling sovereign power over all things in our country. And it only requires such a public sentiment in our profession, to set this matter right. But in addition to this, we would suggest the encouragement of private schools for practical instruction in Human and Comparative Anatomy, Natural History, Botany, &c., &c., in every central place throughout our country, into which the students should be gathered during the intervals of their attendance on the medical colleges, instead of being scattered, one here and another there, without the constantly spurring influence of rival minds to act upon them. Such schools would, almost necessarily, be under the care of the most eminent physicians and surgeons in the sections where they were located; and this, again, would ensure greatly superior advantages to the student, over the present system, while the annual fee necessarily required to sustain the schools, and the fear of constantly coming in contact with more active companions, would form an effectual barrier, at the very threshold, against the entrance of many an indolent and half educated dolt into our profession.

But we shall have occasion to allude to another view of this subject in another place.

"How to reduce the number of our examining boards, and bring about more uniformity and exactness in their requisitions for license, is a question of much more difficult solution. This arises principally from the fact, that the present boards hold this right by special charter; and hence it is legally beyond professional control. But whether it would not be for the benefit of the whole profession, that all county societies should voluntarily surrender their right to appoint censors, and all the medical colleges agree to act, in the examining and recommending of candidates, in concert with a board, equal in number, appointed by a State society in the State where they are located; or whether the whole business of licensing should not be surrendered into the hands of a central and independent board in each State, while the fees resulting therefrom, after deducting a fair remuneration to the censor, should be in some way appropriated to the encouragement of scientific investigations among us, are legitimate questions for the consideration of a national convention. Not, however, with a view of interfering with the legal rights of any man, or body of men, further than such rights may be voluntarily surrendered for the general good.

"But, finally, *how* shall we stimulate the ambition, and arouse the energies of the whole profession to a higher state of intellectual activity? We answer, *first*, by organizing a permanent National Medical Society, by whose annual discussions an exciting, vivifying, and healthful influence shall be exerted over the length and breadth of our country, until a correct and noble sentiment is engendered in the bosom of every member of the profession. Second, by encouraging private schools in medicine, and thereby not only create places that shall excite the laudable ambition of thousands who now never dream of passing beyond the daily professional routine, but which shall serve also as nurseries to keep alive the spirit of active inquiry in every county in our whole Union, and where the busy practitioner may frequently run in and refresh his memory, and renew his knowledge, without the expense and time, which are very seldom submitted to, of travelling fifty or a hundred miles from his home and patients.

"And lastly, we would have a part, at least, of the thousands of dollars which are annually paid by the candidates, for their diplomas, appropriated, under some well organized regulations, to the encouragement of special scientific investigations. Such an appropriation annually might be made a powerful agent in exciting and sustaining a noble spirit of inquiry among us. Indeed, it would in a great measure prevent one of the most fatal evils in the profession, viz., the stern necessity, which a large majority of those who enter our ranks are under, of spending the first and most ambitious period of their lives in accumulating means with which to make investigations, while, in doing so, they inevitably lose the very spirit with which they began. Who can say how many minds, even a moderate fund, judiciously applied, would snatch from a gradually acquired, sordid craving for mere wealth, which never fails to swallow up every nobler feeling of the human mind. We have already extended these remarks much further than we intended, though we have but just entered on the wide field before us. Indeed, we look forward to the day appointed for our National Convention, as one of auspicious dawning; and we hope it will be looked upon only as the beginning of a new and brighter era in the medical profession in our country. N. S. D.

"*Binghampton*, Feb. 1st, 1846."

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Clinical Teaching.—We assume it to be the duty of a medical journal like ours, which claims to be perfectly independent of all cliques, schools, and parties, and to be above the advocacy of private views and interests, to discuss from time to time, in a temperate and friendly manner, the various subjects connected with medical education, pointing out existing defects, and suggesting such improvements as circumstances would seem to require. Our long residence in New York, now a period of twenty years;—our intimate and friendly relations with the professors in both our excellent schools of medicine, and may we not add, our con-

stant devotion to our profession, and efforts, however unsuccessful, to cultivate and improve it, as a practical science and art, these, we say, would seem to entitle us to the privilege, at least, of freely expressing our opinions, and of advocating such measures as we think calculated to benefit the cause of education and medical science in our midst, without incurring the charge of interested motives, officious intermeddling, or a desire to depreciate the advantages of our own city, while we exalt those of our neighbors. We are not unaware of the spirited rivalry existing among the different medical colleges of our country, and the natural desire on the part of each, and all of them, to represent in a favorable light, the advantages which they can furnish, for the prosecution of medical study; but we mistake the character of our professional brethren altogether, if they will regard otherwise than with favor, efforts, wheresoever, and by whomsoever made, designed to raise the standard of medical acquirement, and multiply facilities and advantages for the successful attainment of medical science.

Dr. Bell, of Philadelphia, who is on terms of personal friendship with several of the professors in each of the medical schools of that city, has again and again alluded to defective arrangements there, without incurring, as we have ever heard, the charge of hostility to her interests, or a desire to build up the colleges of New York at her expense. In the "Bulletin of Medical Science," for March, 1844, he used the following language:—

"*The wards of the Pennsylvania Hospital, almost deserted by the Students—a visit but once a week to the Philadelphia Hospital, across the river, are discouraging signs. They furnish bad augury; certainly indicate anything but a healthy state of clinical instruction.*"

In his "Bulletin," for November last, Dr. Bell remarked also, as follows:—

"One of our contemporaries, in lauding college clinics, as we may call Dispensary practice at the building, gives a rub to some of us, who have not looked through his glasses, when examining into the merits of the present fashion. We had proposed to make a few remarks, resting chiefly on statistical data, in reply; but shall withhold them as inopportune at this juncture. We would say, however, that the opinion heretofore expressed of the advantages, and we may now add, downright necessity of our medical schools having their own hospitals under the jurisdiction and control of their own faculties, are becoming daily more apparent. College Dispensaries are but the preludes to college hospitals, towards the endowment of which we are fully persuaded that this community, including nearly all the members of the medical profession in it, will heartily contribute, so soon as a definite and practical plan of operations is offered by the respective medical faculties."

Our estimate of the advantages of *cliniques* as compared with *clinical* teaching, strictly so called, in hospitals, corresponds very closely with the opinions expressed by Dr. Bell; and if, in giving utterance to these views, we should at times, be somewhat earnest and emphatic, we trust it may be attributed to the true cause, viz., our deep sense of the importance of clinical advantages to the student in prosecuting that most difficult of all studies, the study of modern medicine. To show our sincerity in this matter, should it be thought expedient by the medical schools here to establish another hospital in this city for the purpose not only of

curing disease, *but of teaching how to cure it*, by introducing regular, thorough, systematic clinical teaching, in connection with their other lectures, we hereby pledge our personal exertions, and the influence of the Journal and our pen, so far as they have any, to carry the plan into early execution, and we believe the profession generally are ready to co-operate in carrying forward such an enterprise. Private letters from Philadelphia inform us that such a plan is now on foot in that city. New York, with her immense superiority in population, and the more abundant *material* for carrying out such an undertaking to an extent almost unlimited,* will certainly not remain a silent spectator of such efforts, and allow the race to be won without some exertion on her part.

The New York hospital, as we have already remarked, is an admirable clinical school, but *one* such establishment is insufficient to furnish proper advantages to one half the students who are henceforth to resort here for the purpose of pursuing their medical studies. A truce then to jealousies—let us set to work, and cease not our exertions, till one or two more hospitals are thrown open for the cure of the sick, and for teaching the same to others.

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Medical School of the New York Hospital.—We take much pleasure in again calling the attention of our readers to the approaching spring course of lectures at the New York Hospital, which commences on Tuesday, March 10th, and continues two months. Lectures on *Ophthalmic Surgery* will be given by A. C. Post, M.D.; on *Surgical Anatomy* (*Genito-urinary Organs*), by G. Buck, M.D.; on *Surgical Pathology*, by J. Watson, M.D.; on *Diseases of the Chest*, by J. A. Swett, M.D.; on *The Pathological Relations of the Nervous System*, by J. H. Griscom, M.D.; on *Pathological Anatomy*, by T. M. Markoe, M.D.; and on *Animal Chemistry*, by Mr. L. Reid. Mr. Reid, who is an excellent chemist and successful experimenter, will form a class for the purpose of giving practical instruction in those departments of Animal Chemistry most intimately connected with the practice of medicine; the different secretions, healthy and morbid, will be made the subjects of analysis. The ticket is but $8, which admits students to all the privileges of the Hospital, including lectures and the use of the library, for one year. Three lectures will be given four days in the week, from 9 A.M. to 12 M.

In stating the number of students, who had taken out the hospital ticket, in our last Number, we only alluded to those who had done so during the months of November and December last, and since the commencement of the present session of the Medical Colleges. We find, however, on inquiry, that over eighty students are in attendance upon the New York Hospital, including those who took out their tickets during the summer and autumn, a fact which we state with pleasure, as it shows that the great advantages enjoyed in this Institution are better appreciated than we had supposed. If these advantages are not improved by medical students, it will ever be a source of regret to them, we are confident, in after life; for we repeat, however advantageous *cliniques* may be, they do not fully supply the place of hospital privileges and old-fashioned *clinical* teaching. The governors of the New York, unlike those of the

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*About fifty thousand dispensary patients are annually treated in this city, nearly one half of whom are proper subjects for hospital practice.

Blockley Hospital of Philadelphia, are evidently of opinion, that hospitals have two-fold purposes to serve: firstly and principally, to afford relief to the sick-poor, and secondly, to furnish to those who are learning the symptoms and nature of disease, an opportunity of studying on a large scale, under the eye and with the assistance of men who are supposed to possess a more than ordinary amount of information respecting the healing art. They consider that the business of a hospital, as already remarked, is to *cure disease and to teach the cure of it*; and that this can be done nowhere else as well, as in such institutions as that committed to their charge. Accordingly, they have never, so far as we have heard, thrown any obstacles in the way of clinical teaching, but, on the contrary, encouraged it; and since this is the case, we cannot but consider those students as regardless of their own best interests, who do not avail themselves, to the very fullest extent, of these advantages. We perceive that Dr. Cormack has lately been forbidden by the managers of the Edinburgh Infirmary, "to offer private clinical lessons to a class of more than *ten* pupils" in that charity, and that the privilege of giving *any kind* of clinical instruction in Edinburgh, has been limited by the managers to two or more university professors, and alternately to one of the two senior physicians. We are glad to know that such absurd restrictions as these are unknown in the New York Hospital. There is no regulation to prevent any amount of clinical teaching, nor an *equal number* of professors in both our Medical Colleges, from taking part in the clinical instruction of this establishment; and we hope, as an act of simple justice, that such liberty will soon be expressly granted.

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Eau Brocchieri.—There has been recently much discussion in this city, and many experiments made, relative to this second edition of Bishop Berkeley's *Tar Water*, and, as on a vast many other subjects connected with the *healing* art, there seems to be considerable diversity of opinion as to the merits thereof. Having witnessed some of these experiments, and examined the arteries of three or four sheep, to which the water had been applied, and also having examined the water itself, we have come to the following conclusions:—

1. The Eau Brocchieri is a humbug of the *first water*. It is undoubtedly the preparation known in Italy for many years past, under the name of the *Aqua Balsamica Arteriale*, alias *Aqua Binelli;* at least, it is identical with it in composition and physical properties. In proof of this, we refer to Dr. John Davy's "*Researches*" (vol. i., p. 346). In physical properties it corresponds exactly with the Aqua Binelli as thus described by Dr. Davy: "It is of the same sp. gr. nearly as distilled water. It is neither acid, alkaline nor saline. It sodor is not unlike that of coal-gas not purified, which it loses by boiling; taste rather pungent; not in the slightest degree astringent. In short, it appears to be merely water containing a little volatile oil or naptha, and is probably prepared by distillation of water from petroleum, or some kind of tar."

2. As a styptic in cases of ordinary cuts or wounds, it has no other efficacy than simple cold water. This has been proved by Dr. Davy, Dr. Mott, and many other physicians of high standing.

3. It has been proved by Dr. Davy, that if the carotid artery of a dog, goat, or sheep, be divided partially, transversely, or even *entirely severed*, the hemorrhage can be effectually controlled, by compresses (with *moderate* pressure), wet with cold water. For several experiments of this kind, we refer to Davy's "*Researches*," vol. i., pp. 347—51, etc.

4. In the experiments above referred to the artery remains pervious. The inferences deduced by Dr. Davy are thus stated: "My experiments," says he, "show how a hemorrhage from the wound of a large artery, which by itself

would be speedily fatal, may be easily arrested by moderate compression through the means merely of several folds of linen or cotton, moistened with water; and they further show how, under this moderate compression, the wound in the artery heals, the vessel remains pervious, and without the formation of an aneurism, and how, after a time, the short space of six weeks, only just perceptible traces of the wound are discoverable. Whether similar results would be obtained, were trial made of the same means in the wounds of arteries in the human subject, can only be ascertained, positively, by judicious experiments. The probability is, the results would be the same," etc.—(*Loc. cit.*, p. 351.)

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Spring Course of Lectures in the College of Physicians and Surgeons in Crosby Street.—The Annual Spring Course of Lectures in this institution, will commence on Tuesday, March 17th, and continue three months, two lectures daily.

Dr. G. Wilkes will lecture on the anatomy and diseases of the eye; Dr. H. D. Bulkeley, on diseases of the skin; Dr. A. Clark, on the pathology of the chest; Dr. Quackenboss, on surgical anatomy; Dr. Roberts, on subjects in general pathology; Prof. Parker, on the male urinary apparatus; Professor Gilman, on the diseases of the uterus; and Prof. Watts, on special anatomy. Each of the practical courses will be illustrated by cases examined and prescribed for in the presence of the class. Clinical instruction at the college Monday and Thursday of each week; and on Monday, Wednesday and Friday, at the Eye and Ear infirmary, by Dr. Wilkes. Diseases of the skin amply illustrated. Fee for the whole, *ten dollars*.

Students in the country will find it much to their advantage to spend the spring months in the city, and attend one of the two excellent courses of lectures, then in course of delivery.

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Reports of the New York Cliniques.—We have long had it in contemplation to report select cases, occurring at the weekly cliniques of Professors Mott and Parker, with the remarks of these gentlemen, but various circumstances have hitherto prevented. There is now, however, the less necessity for our doing so, as a periodical has been commenced in this city, by Dr. C. T. Collins, under the name of the "*New York Medical and Surgical Reporter*," which is nearly exclusively devoted to reporting cases occurring at the above "cliniques," and in hospital practice. Although, as we have said before, there are some ordinary cases coming up at these cliniques, which are hardly worth publishing, yet there are others of high interest, and the observations made on them are eminently practical,—the result of much study and extensive experience, and well worth recording for the benefit of the profession generally. Dr. Collins is well qualified for his undertaking, and we hope will receive a generous support from the profession.

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Transylvania University.—We learn from an "Extra" of the Lexington (Ky.) "Observer and Reporter," Feb. 4th, 1846, that Samuel Annan, M.D., of the city of Baltimore, has been elected Professor of Obstetrics in the Transylvania University, and Elisha Bartlett, M.D., formerly of Lowell, Mass. (now in Europe), Prof. of the Theory and Practice of Medicine. We are informed that there were forty-nine candidates for the Obstetrical chair, from seventeen different States. Of course the task of selection was not an easy one; we believe, however, that the choice has fallen on a gentlemen, not only qualified to sustain, but extend the reputation of the University.

Catalogues of Medical Schools.—The present season seems to have been a highly prosperous one for medical schools generally. Beginning at the east, we find in the catalogue of the Medical School of Maine, at Brunswick, the names of 73 students. We are glad to see that this school requires in candidates for graduation, a knowledge of the *Latin language and Natural Philosophy*. The library has 3,200 volumes, and students are entitled to borrow two books weekly. We cannot, however, but regard the organization of the school as very defective, it having but three professors. We have received no catalogue from Harvard University, but understand that about 180 medical students are in attendance. Yale numbers but 53 medical students, the present year, although it has a very able faculty of six professors; one feature of the regulations we like, and that is, that the "board of examiners" consists of the medical professors of the college, and an equal number of physicians, chosen by the Fellows of the Medical Society of the State; licenses are also granted by the president of the Society, upon the recommendation of the same board, and candidates for a license must possess the same qualifications as those for a degree—except that one course of lectures only is required. The University of the City of New York has, we are informed, 425 students, and the College of Physicians and Surgeons, 200. The commencement of the former is held on the 12th day of March. The class of graduates this year, it is believed, will reach as high as 150 or more. The Medical Institution of Geneva College numbers 178 students. In this institution, the candidates are examined by the professors in the presence of the curators (of whom there are about twenty), and a majority of the votes given in joint ballot is necessary for a recommendation for a degree. The catalogue of the Western Reserve College at Cleaveland, has enrolled on it the names of 160 medical students. We regret to read on the circular announcement of this flourishing school that "when desired, a *promissory note* payable in twelve months will be received in place of money at the time," a plan which is fraught with evil, both to students and professors, too numerous to mention. If students require credit, they can generally obtain it, if desirable, of their friends and acquaintances. The catalogue of the Willoughby Medical College gives a total of 164 students. Students seem to swarm in northern Ohio. We hope, as a sort of regulator both in Ohio and elsewhere, that as numbers increase, the standard of requirements for graduation will rise; we are told, that the courses of lectures in this school, are as full and thorough as in any similar institution, and that the examinations for graduation are as rigid as can well be. We are pleased to see also that it is expected that students will *pay for their tickets*, when they take them out; although it would seem that notes, with good security, are likewise taken. Berkshire Medical Institution has 142 on her catalogue.

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Lectures on Lithotripsy.—We are happy to learn that Dr. F. Campbell Stewart, of this city, will commence a private course of lectures on "Lithotripsy and Diseases of the Genito-Urinary Organs," early in March. We can recommend these lectures, from our personal knowledge of the qualifications of Dr. Stewart, as in the highest degree worthy of the attention of medical practitioners and students of medicine.

New-York Eye Infirmary.—The twenty-fifth annual report of this institution states that during the past year more than 1516 new patients have been received at the Infirmary. On the 1st January 1845 there remained under treatment 43, thus making an aggregate of 1559 prescribed for by the surgeons during the year 1845. Of this number 1154 were cured, 85 relieved, 30 declined treatment, 13 were discharged as incurable, the results of 27 were not ascertained, and one hundred remained under treatment. This is an increase in the number of patients last year of 200.

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Deaths in the City during the past year.—Whole number of deaths in the City of New York, during the past year, 1845, 10,983—of whom there were: White Males 5,554, White Females 4,892, Black Males 261, Black Females 276; of these there were of the age of five years and under 5,865, from five to ten 410, from ten to twenty 389, from twenty to thirty 1,161, from thirty to forty 1,131, from forty to fifty 760, from fifty to sixty 417, from sixty to seventy 343, from seventy to eighty 206, from eighty to ninety 111, from ninety to one hundred 21, one hundred and over 3, unknown 106. The principal causes of death are as follows: Consumption 1,659, Convulsions 721, Fevers 501, Cholera Infantum 523, Apoplexy 252, Congestion of the Brain, 186, violent death 165, old age 113.

Places of Nativity.—United States 8,510, Ireland 1,384, France 46, England 268, Holland 12, Scotland 116, Sweden 1, Germany 349, Russia 4, West Indies 20, Poland 1, Wales 15, British North America 32, Norway 2, Switzerland 9, Denmark 4, Italy 5, Spain 3, Prussia 2, Africa 2, at sea 1, unknown 197.

Places of Interment—Catholic Burial Places 3,794, Baptist 184, Methodist 1,791, German Lutheran 381, Presbyterian 889, Hebrew 72, Episcopal 341, Friends 53, Dutch Reformed 278, Associate do. 4, African 199, Potter's Field 1,437; removed from the city 1,419.

Whole number of deaths at the various Hospitals and other public institutions, 913. Increase of deaths in 1845 over those of 1844, is 2023.

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Pregnancy at a very advanced Age.—A woman in the Department of the *Seine et Oise*, the wife of a carpenter, much younger than herself, recently gave birth to a living and healthy male infant, at the advanced age of sixty-five.—*Galignani's Paris Messenger.*

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Jarvis on Popular Physiology.—We received at too late a period for notice under our Bibliographic Head, a copy of a Lecture on the Necessity of the Study of Physiology, delivered before the American Institute of Instruction, at Hartford, August 22, 1845, by Edward Jarvis, M. D., of Dorchester, Mass. We shall hereafter notice this lecture at some length, in the meantime we can only recommend it as decidedly the best discourse of the kind we have ever met with. A copy ought to be placed, at the public expense, in every family in the Union.

TO OUR READERS.

We solicit, for the first time, the indulgence of our subscribers for the late appearance of our Journal, it having been delayed for the proceedings of the *National Medical Convention*, recently convened in this city. We had expected to have furnished with the report of what was done, the remarks made by the different speakers; but we find it impossible to do this without delaying the present number too long, as each individual would, of course, expect to examine the proofs containing his remarks. We, therefore, present merely an abstract of the proceedings, and, in our next, shall publish the official account, as prepared by the Secretary.

We cannot refrain, however, from congratulating the profession generally upon the very successful and auspicious results which are likely to flow from the recent Convention. We presume there was not an individual present who was not surprised to find so general and respectable a representation of the medical societies, associations and colleges of the United States; and there certainly could have been no one, who did not feel honored by convening with such associates, distinguished, as many of them were, by eminent success, as authors, teachers, and practitioners, or, as all were, for zeal in the cause of medical education. If there was something inspiriting in the very idea of bringing together, from our vast and extended territories, a body of learned and laborious men, intent on advancing their noble profession in honor and usefulness, there was something still more gratifying in finding ourselves actually in the presence of an assembly far more numerous and respectable than was contemplated by the most sanguine—an assembly actuated by one common sentiment,—the improvement of medical science, the advancement of the profession in those attainments and qualifications which may ensure to it not only greater usefulness, but implant it still more firmly in the respect and confidence of the community. These ends were kept steadily in view in all that was done, and all that was said; and we believe we shall be sustained in the opinion, that they will, sooner or later, be accomplished. It was not expected that much more would have been done at the recent meeting than to institute incipient measures; survey the whole ground, collect public sentiment—in short, prepare the way for future action. This would have been accomplished, it is true, by a still smaller number than actually assembled; but then, we should have wanted that assurance which we now feel, that the profession throughout the whole United States are prepared to enter in earnest upon the plan of medical reform, and carry out those measures which seem to be demanded for the promotion, not merely of our individual or common interests, but the more important and pervading interests of our common humanity. When the attempt was made, in 1826, to convene a similar convention in Northampton, Massachusetts, after more than a year's preparation, but *eleven* persons assembled, representing but *four* State Medical Societies, and five Medical Schools; and a similar convention, which was to have met in Philadelphia on the first Tuesday of May, 1828, at the call of the *Medical Society of the State of New York*,

to consist of a delegate from each of the regular Medical Colleges and State Medical Societies, "for the purpose of suggesting and recommending for adoption, so far as is consistent with the laws of the several States, a more uniform system of medical education than now prevails"—this convention was a total failure, Dr. T. Romeyn Beck, of Albany, being the only delegate present. The far different result of the recent proposal for such an assembly, we repeat, satisfactorily shows that the time has arrived, as we anticipated, when such an attempt would be crowned with success.

It is unnecessary here to call attention to the proceedings of the Convention, as they speak for themselves; we cannot, however, but rejoice at the prospect, that the national organization of the profession, which will inevitably follow, will not only do much for the cause of medical education and medical ethics, but also for medical science. The promotion of either of these objects is worthy of a combined, systematic, and persevering effort. We have no doubt whatever that the convention which is to assemble in Philadelphia on the first Wednesday of May, 1847, will be still more numerous, and that every Medical School and State Society in the Union will there be represented. The series of reports which will then be presented, judging from the character of the committees appointed, will be able and interesting.

We also invite attention in our present number, under our Foreign Miscellany, to the proceedings of the late *French Medical Congress*, which convened at Paris during the last year. Besides possessing an intrinsic interest, which will commend them to our readers at the present moment, when questions of medical reform are agitated throughout Great Britain and America, and the whole profession seems actuated by one common spirit, they cannot but attract the profound attention of every medical man.

Connected, also, with the subject of medical education, we present a report of the Counsellors of the Massachusetts Medical Society, made in the year 1826, as showing what were the opinions of an enlightened body of men at that period on many of the important questions connected with this subject. To New England belongs the credit of adopting the earliest measures for the improvement of the profession; and, as her reward, she has a body of medical men who will not yield to any in point of respectability, practical skill, and usefulness.

Our readers will perceive that we have exceeded our customary limits in the present number, by nearly one-third the usual quantity of matter, and that, too, without subjecting them to additional expense. We think they will agree with us, that this liberality on the part of our publishers deserves their consideration, and constitutes an additional claim to the continuance of their influence in extending our circulation. It is an earnest and a pledge of future efforts, on their part, to sustain the reputation and usefulness of the work.

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ART. XIX.—A Clinical Introduction to the Practice of Auscultation and other modes of Physical Diagnosis, intended to simplify the study of the Diseases of the Lungs and Heart. By H. M. HUGHES, M.D., etc. Philadelphia: Lea & Blanchard. 12mo., pp. 270.

The Diagnosis, Pathology, and Treatment of the Diseases of the Chest. By W. W. GERHARD, M.D., Lecturer on Clinical Medicine to the University of Pennsylvania, etc. Second Edition, revised and enlarged. Philadelphia: Barrington & Haswell. 1846. 8vo., pp 288.

The Young Stethoscopist; or, the Student's Aid to Auscultation. By H. J. BOWDITCH, M.D. New York: J. & H. G. Langley. Boston: William D. Ticknor & Co. 1846. 12mo., pp. 278, . . . 401

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TO READERS AND CORRESPONDENTS.

In our next number, we shall continue the publication of the Proceedings of the Medical and Surgical Society of New York; also of the Kappa Lambda Society of this city. Articles will also appear from President Hale, of Geneva College; Drs. Smith and Elliot, of New York; Dr. Kellogg, United States Navy; Dr. Monell, of Newburgh; Dr. Williams, of Deerfield; Dr. Dowler, of New Orleans; the Editor, and several others.

Since our last, we have received the following works:

The Influence of Tropical Climates on European Constitutions. By JAMES JOHNSON, M.D., and JAMES R. MARTIN, Esq. From the Sixth London Edition. With Notes by an American Physician. S. S. & William Wood. 1846. 8vo., pp. 624. (From the Publishers.)

A Manual of Chemistry. By RICHARD D. HOBLYN, A.M. New York: S. S. & William Wood. 1846. 12mo., pp. 325. (From the Publishers.)

Elements of Physiology, including Physiological Anatomy. For the use of the Medical Student. By WILLIAM B. CARPENTER, M.D., F.R.S. With 180 illustrations. Philadelphia: Lea & Blanchard. 1846. 8vo., pp. 566.

Lectures on Natural and Difficult Parturition. By EDWARD W. MURPHY, A.M., M.D. London: 1845. 8vo, pp. 263. (From the Publishers.)

An Introduction to Entomology; or, The Elements of the Natural History of Insects, etc. By W. KIRBY, F.R.S., and WILLIAM SPENCE, ESQ., F.R.S. From the Sixth London Edition. Philadelphia: Lea & Blanchard. 1846. 8vo., pp. 600. (From the Publishers.)

An Essay on the Use of Narcotics and other Remedial Agents calculated to produce Sleep, in the Treatment of Insanity, etc. By JOSEPH WILLIAMS, M.D. London: 1846. 12mo., pp. 120. (From the Author.)

Elements of Materia Medica and Therapeutics. By E. BALLARD, London, and A. B. GARROD, M.D., etc. With additions and alterations by R. E. GRIFFITHS, M.D. Philadelphia: Hogan & Thompson. 1846. 8vo., pp. 516. (From the Publishers.)

Directions for taking Meteorological Observations, adopted by the Medical Department of the United States Army. 1846. 8vo., pp. 30. (From Dr. Mower.)

Lectures on the Nature and Treatment of Deformities. By R. W. TAMPLIN, F.R.C.S.E. With illustrations. Philadelphia: Barrington & Haswell. 1846. 8vo., pp. 216.

A large number of other works received will be acknowledged in our next,

The following Medical Journals have been received in Exchange:—

The Dublin Medical Press.
The Dublin Journal of Medical Science, &c.
The London and Edinburgh Monthly Journal of Medical Science.
The Provincial Medical Journal.
The London Medical Gazette.
The American Journal of the Medical Sciences.
The Illinois Medical and Surgical Journal.
The New Orleans Medical Journal.
The Boston Medical and Surgical Journal.
The Western Journal of Medicine and Surgery.
The St. Louis Medical and Surgical Journal.
The Medical News.
The Philadelphia Medical Examiner.
The Bulletin of Medical Science.
The Southern Medical and Surgical Journal.
The Montreal Medical Gazette.
Silliman's Journal of the Arts and Sciences.
The American Journal of Pharmacy.
The American Journal and Library of Dental Science.
The American Journal of Insanity.
The Buffalo Medical and Surgical Journal.
The Southern Journal of Medicine and Pharmacy.

A notice of the recent Commencement at the University of New-York, and the College of Physicians and Surgeons, together with a list of their graduates, was received at too late a period for insertion in our present number—it will appear in our next. Several works which we have hitherto acknowledged will then be noticed.

☞ We again repeat, that we are not to be held responsible for the statements or sentiments of our contributors; as the Journal has always been conducted on this principle, so it will continue to be, while under its present management. We beg our correspondents, however, to avoid everything which has the least bearing towards personality, and, so far as possible, any remarks which may give unnecessary offence. Our aim is, instead of exciting or fomenting discord or animosity, to do all in our power to conciliate and harmonize the profession. The Journal must be the organ of peace and good-will, so far as this is compatible with the claims of justice and impartial criticism.

☞ All letters in regard to the *business* department of the Journal, and all remittances of money, should be addressed *exclusively* to the Publishers, J. & H. G. Langley; but books for Review, and Communications designed for publication, should be directed, *free of expense*, to the Editor of the New York Journal of Medicine, care of J. & H. G. Langley, New York. Persons at a distance, may direct parcels paid as above, under care of Barrington and Haswell, Philadelphia; W. D. Ticknor & Co., Boston; and Wiley and Putnam, London.